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**Ontario's Changing Population
Volume 1**

**Patterns and Factors
of Change/1941-1971**

**A Background Report
March 1976**

**The Honourable
W. Darcy McKeough
Treasurer of Ontario**

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Deputy Minister**

Government
Publications

Ontario's Changing Population Volume 1



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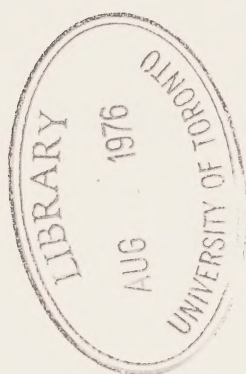
ONTARIO'S CHANGING POPULATION

VOLUME I:

PATTERNS AND FACTORS OF CHANGE

1941-1971

March, 1976



PREFACE

This report is part of a series of working papers prepared by the Regional Planning Branch in support of urban and regional planning in Ontario. As the first of a three-volume study on population in Ontario, this document deals with the historical aspect of population change--its size, composition, and distribution--while the subsequent two volumes will be concerned mainly with future population change and resulting policy implications. It should be emphasized, however, that the material contained here should not be construed as government policies or intended actions. Rather, the main intent of this and subsequent reports is to clarify a number of development issues and to serve as a discussion basis for matters relating to population.

Many people contributed to the completion of this undertaking. Foremost are Mr. E. H. Suichies and Mr. N. H. Richardson, the Director and the Chief Planner of the Branch respectively, whose continuing support made the completion of this undertaking possible. Other contributors include Mr. C. Tappenden and his statistical staff, Mr. U. Roose and his cartographic staff, Mr. D. Davis, Mr. I. Fraser, Mr. C. Bigenwald, Mrs. E. Samery, Mrs. Anne Carruthers, and Professor Gerald Hodge of Queen's University. I would also like to thank Mr. R. Kogler of the Economic Analysis Branch, the Ontario Statistical Centre, Statistics Canada, the Ontario Institute for the Study of Education, and the Department of Manpower and Immigration for providing some of the data.

Cheuk Wong

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CHAPTER I: PERSPECTIVE ON POPULATION

A. SCENARIO

"A birth occurs. The need for an additional hospital worker becomes urgent. An unemployed worker and his family from northern Ontario migrate to Kitchener. More immigrants arrive in Toronto. Housing demand is increased and the local supply is changed. The income of the Toronto region grows. The Gross Regional Product, household expenditures, and government outlays edge up. Welfare and educational services for migrants are instituted. Toronto's growth confirms the plans of banks to expand capital investment and operations in the region.

Impulses are transmitted to other regions.* Automobile production in the Oakville area registers some gain. In part payment, money flows in the opposite direction. The income generated by new exports has a multiplier effect in the Oakville areas's economy. Oakville's service industries expand, and so do its imports from other regions, creating multiplier effects in those regions. In Northern Ontario, mining employment decreases, and the demand for local services and housing may be eased. Toronto residents with growing incomes are disposed to take a vacation in the Haliburton region. Service industries for tourism expand and make demands on local labour.

Concomitant with such impulse transmission is virtually a continuous succession of births and streams of immigrants coming to Ontario. Each birth and immigrant creates its own small-order repercussions. In the aggregate, the effects are major. Major age structures are transformed. Major changes in regional income, household expenditures, government outlays, and investment occur. Major impacts upon regional industrial structure are experienced. Trip volumes, land use patterns, and urban structures adapt. Accordingly, regional communication systems, cultural values, and social goals change. Such change, whether reflected in voting behaviour, political platforms, government structures, administrative practices, business decisions, or consumer tastes, leads to new social welfare policy."**

* The term region here refers to a sub-provincial area, and, not necessarily to any specific administrative or planning territory.

** Adapted from Hodge, G. and Paris, J., "Population Growth and Regional Development," A Paper Presented to the Conference on Implications of Demographic Factors for Educational Planning and Research, OISE, Toronto, 1969, and Isard, W., Methods of Regional Analysis, Cambridge, Mass., M.I.T. Press, 1960.

It is evident from this brief scenario that population is a major factor in many facets of development. Every birth, or the arrival of a new immigrant, when aggregated, represents some change in the structure and management of the community. The effect might be reflected in a number of ways, for example, in the pace and pattern of investment and consumption, demand for jobs, income levels, housing, labour supply, social services, land uses etc. In short, there are hardly any major development issues where population does not enter into consideration - the management of our economy, the organization of our settlement pattern, the utilization of natural resources, the planning of social services, infrastructure and even the evolution of our administrative structure. Thus, the study of population change whether about its size, age structure or flow characteristics between geographical areas, is an indispensable part of our effort to program provincial development and allocation of resources.

B. THE COMPONENTS OF POPULATION CHANGE

The sources of population change are natural increase and migration. The first is defined as the excess of the number of births over deaths in the population. The extent of natural increase is influenced mainly by factors whose effects have evolved over a fairly long period of time and in many instances are beyond governmental intervention. The level of fertility, for one, is primarily associated with cultural norms, socio-psychological factors, socio-economic status, and social security programs, whereas mortality rate,

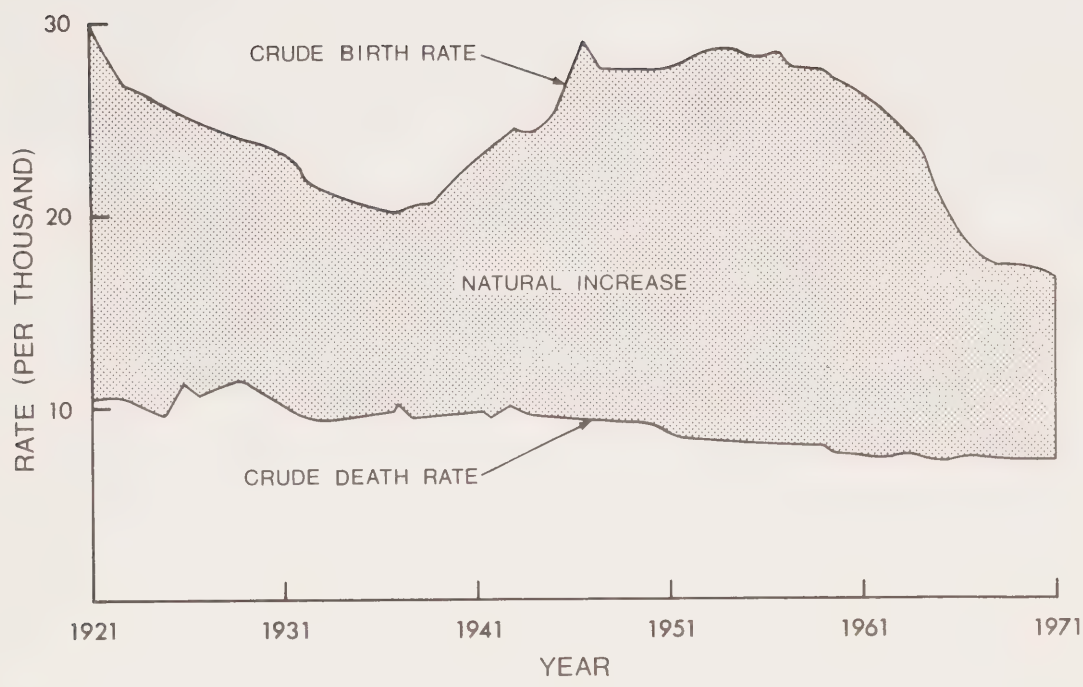
for another, is generally influenced by sanitary and medical technology, availability of preventive and curative services and level of income. In the past few decades, fertility in Canada has fluctuated fairly considerably. Consequently, it has caused some dramatic changes in natural increase and consequently in the size as well as in the age structure of the population (Figure 1).

Net migration is the difference between the numbers of arriving immigrants and departing emigrants. Compared with natural increase, it is a far more volatile component, and its effect on the community is more immediate and more complex. The causes for migration are complex and varied. Regional economic difference and to a lesser extent, such aspects as housing, climate and availability of public services are generally cited as the major factors.

Migration plays a particularly important role in regional development. Besides altering the size and the demographic make-up of the region, migration is seen as an indication of and agent for social and economic changes among the regions.* It provides the main mechanism for redistribution of population in response to economic opportunities and land use conditions, more so than natural increase. As Stone points out, this adjustment process influences the growth potential of a community and the extent to which the community experiences certain social, economic and land use problems. Moreover, migration is also an instrument for innovation, cultural change and for diffusion of

*Stone, L. O., Migration in Canada, Some Regional Aspects,
Dominion Bureau of Statistics, Ottawa, Queen's
Printer, 1969.

FIGURE 1: RATE OF CHANGE IN NATURAL INCREASE, CANADA, 1921 - 1971



SOURCE: Statistics Canada

NOTE: Crude birth rate is calculated as the number of births per year per thousand of population.

Crude death rate is calculated as the number of deaths per year per thousand of population.

new behaviour patterns and styles of living among communities.

In Ontario, migration takes on an added dimension of complexity, in that a substantial portion of it derives from international immigrants who represent diverse ethnic and cultural backgrounds. The impact of these international migrations extends beyond those population-related issues resulting from sheer numbers or from migrants from other parts of the country. Unlike internal migration, international migration can be controlled by government, in both size and characteristics. However, the interest in using this control as a vehicle for influencing the course of population change is just developing and the resolution of the issue offers no simple or clear cut answers.*

It is not just the number of people or the relative shift in the demographic make-up (age, migration, ethnic groups, etc.) which often attract attention. Increasingly, a heavy concentration of population in a few geographical areas has been blamed for the high cost of housing, pollution, traffic congestion, poor quality of living, fiscal strain as well as a host of social problems. But unbalanced growth entails more than economic and social implications. Setting aside consideration of cultural and political balance, in our society, so long as the "group image of change" persists, economic progress will continue to be conceived of as a force

*Just when this report was completed, the Federal Government was in the process of releasing a series of green papers on Canada's immigration and population.

which ought to affect all members and sections of the community.* And in the past, population growth was frequently identified with an improvement in the welfare of the society.** Viewed in this context, the question of how the people are to be geographically distributed deserves just as much importance in the public debate as the size and the composition of the population.

C. SUMMARY OF FINDINGS

Despite the fact that population is intimately interwoven with many of our national and provincial issues, and despite its primacy as a subject for consideration in planning and development, our knowledge on the pattern of population change and those factors affecting it is still rather meagre. Recognizing the complexity and diversity of the subject matter, the materials contained in this report are intended to present an overall view of population change in Ontario during the past three decades. In addition, the report attempts through the support of empirical evidence to illuminate a number of assumptions on which some of the planning policies have been based. The substance here is somewhat different from other demographic studies in that it emphasizes the spatial distribution aspects and its specific relevance to the formulation of provincial and regional development policies.

*Hirschman, A. O., The Strategy of Economic Development, Yale University Press, New Haven, 1965.

**This is not necessarily the case when other considerations enter into the equation such as income level and the maintenance of certain lifestyles. This issue will be examined further in the third volume of this series of reports.

The main study area is the three planning regions in southern Ontario, although considerable attention is given to northern Ontario, as well. The time span extends from 1941 to 1971. The analysis is carried out mainly at three geographical levels: the planning regions, the counties, and all incorporated centres whose population in 1971 was 1,000 or more.

The following convey the highlights of the findings of the study.

The Pattern of Change: Counties and Centres (Pages 17 to 21)

Within Ontario during the past 30 years the growth was rather unevenly distributed among the geographical areas, and the disparities became more pronounced.

The population growth performance of a number of major areas was less than the provincial performance even though they encompassed large metropolitan centres.

There is not a strong correlation between population growth of urban centres and their sizes. Much population growth appears to emanate from Toronto and to proceed in a west and north-west direction.

The Pattern of Change: Rural-urban (Pages 22 to 25)

The total population in the rural areas in Ontario declined only slightly over the past fifty years because the loss of rural farm

population has been counterbalanced by an increase in rural non-farm population.

The rural population, especially the rural farm people, had a smaller proportion of the main labour force age groups (20 to 44) than the urban population, however the percentages appear to have been stable for the past twenty years.

Nearly all townships in southern Ontario experienced a net loss in farm population from 1961 to 1971. However, because of the influx of rural non-farm population, about 2/3 of all the townships examined showed a net gain in rural population.

Most of the townships showed an absolute increase in rural non-farm population (over 90% of the townships examined) between 1961 and 1971. The areas with the highest rate of gain were those surrounding Toronto, Ottawa and Windsor.

Factors Affecting the Distribution (Pages 27 to 28)

Migration tends to exert a much stronger influence on the population change of Ontario counties than their demographic structure.

While many counties possess an advantage in age structure (therefore generate a higher rate of natural increase), they lack the capacity to retain their population (e.g. due to lack of employment opportunities), and this constitutes a disadvantage to population growth in the county. By 1971, only a few of the metropolitan area counties exhibited a distinct advantage for migrants.

The Role of Migration (Pages 32 to 49)

Relative to its population, Toronto's share of international immigrants has been much greater than that of other major urban centres in Ontario.

The pattern of distribution of immigrants has remained very stable and the only major urban centre which shows a visible declining trend in receiving immigrants is Hamilton.

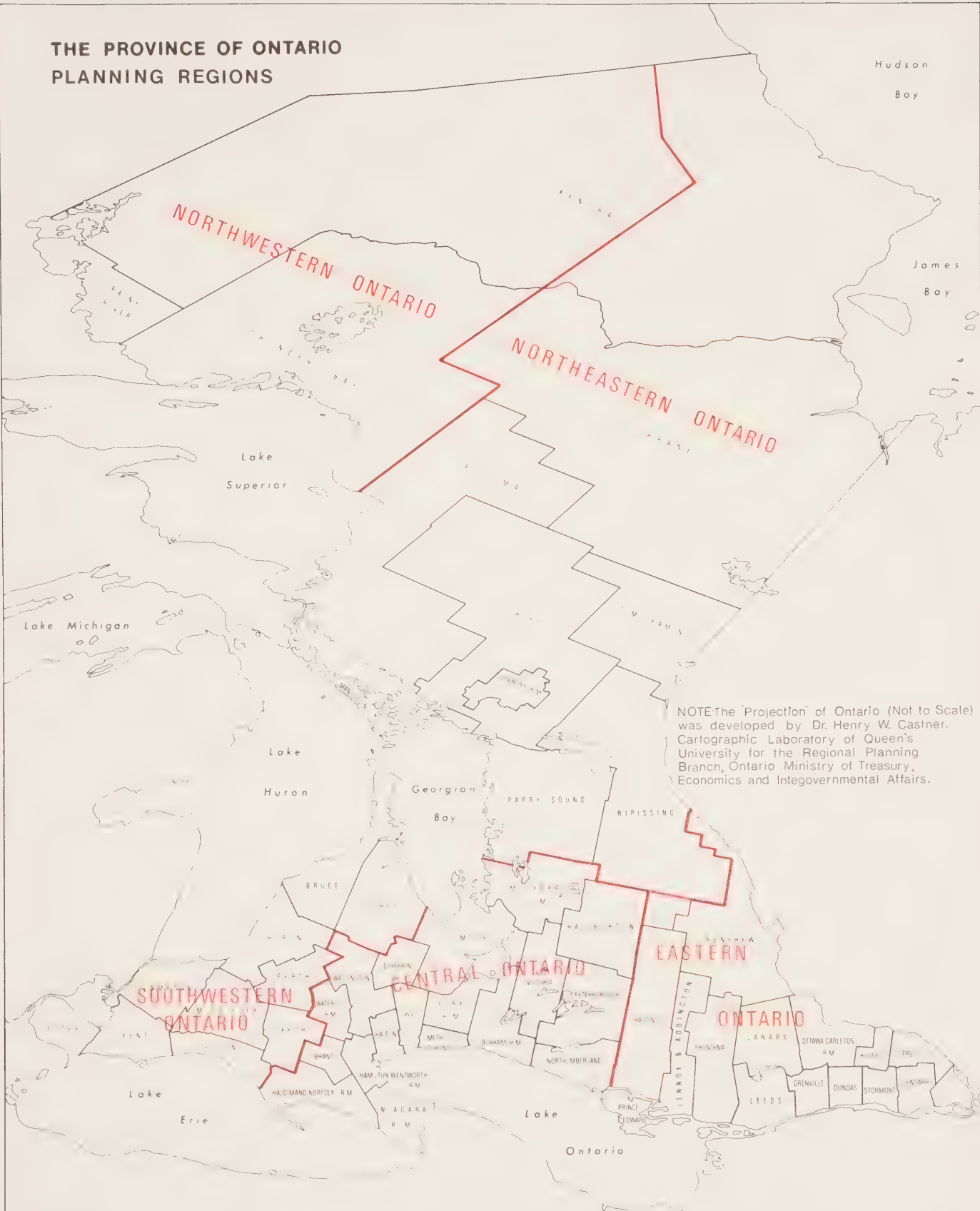
The relative distribution of immigrants among ethnic groups has undergone some changes, but the shift was due more to a decline in the absolute number of immigrants from Europe rather than to a large influx of non-European immigrants.

In general, the spatial pattern of distribution exhibited by most of the ethnic groups appears to be very similar; a few groups tend to show an affinity for certain specific parts of the province. However, the ethnic composition of immigration flow to various centres differs fairly distinctly.

The urbanization pressure created by intra-provincial migration on such areas as Toronto, Hamilton and Ottawa has been relatively insignificant in comparison with the effect of international migration.

The Central Ontario Planning Region received 4/5 of the province's net migration with much of it going to the six COLUC counties.

THE PROVINCE OF ONTARIO
PLANNING REGIONS



NOTE: The 'Projection' of Ontario (Not to Scale) was developed by Dr. Henry W. Castner, Cartographic Laboratory of Queen's University for the Regional Planning Branch, Ontario Ministry of Treasury, Economics and Intergovernmental Affairs.

Net migration constituted over half of the total population increase in the Central Ontario Planning Region and other major metropolitan areas, but only one quarter of the total in the Southwestern and Eastern Ontario Regions.

Recently, the number of counties with net migration loss increased, and a more wide-spread pattern of loss has emerged in the north and east.

Not all metropolitan counties showed an increasing trend in migration gain.

The proportion of centres which experienced a net out-migration has increased recently. More significantly, these centres tend to be concentrated in four broad geographical areas - the Niagara Peninsula, the Kent/Lambton/Huron area, Eastern Ontario (except Ottawa and centres in its immediate vicinity), and Northern Ontario.

There is no conclusive evidence to suggest any direct correlation between the size of the centre and migration gain. Nor does proximity to Highway 401 appear to have any noticeable effect on the proportion of a centre's growth due to net migration. However, (smaller) centres located close to large metropolitan areas experienced high rate of in-migration.

Within an arc of about seventy miles north and northwest of Toronto, nearly all the urban centres have displayed a gain in migration during the past three decades.

Migrants from other provinces tended to be concentrated far less in the Toronto-Hamilton area than did international immigrants.

Eastern Ontario, northern Ontario and a number of rural counties in southwestern Ontario, all experienced a net loss from migration exchanges with the major metropolitan areas. Also, the process of age selectivity appeared to be most pronounced among eastern Ontario migrants (e.g. a higher percentage of the migrants from the region in the 16 to 44 age groups). However, Alberta and British Columbia, not the major metropolitan centres in Ontario, were the most prevalent destination of the emigrants from the eastern and northern parts of Ontario.

In the Toronto/Hamilton area, migration flows took the form of the indigenous population moving outward from the central part of the urban complex to the fringe or to the provinces of Alberta and British Columbia. The urban complex was then replenished mainly by people from other countries. However, in some other metropolitan areas, such a trend did not appear to exist.

Within the COLUC area, people from the Toronto area (Metro Toronto and York Regional Municipality) moved predominantly towards the west compared with the east (about 5 to 1 ratio).

Although there was a fairly substantial exchange of migrants among the five major urban complexes (COLUC, Ottawa, Kitchener/Waterloo, London and Windsor), the net gain or loss to any one of the centres was rather small.

In terms of intraprovincial movements, rural non-farm areas were the most attractive to all migrants, particularly to those from large cities. Also far more people from rural farm areas and from small centres (under 10,000) moved to rural non-farm areas than to the larger centres.

Intra-rural migrants (farm-to-farm movement) appeared to be significantly influenced by the location of Toronto in that it acts as a psychological deterrent to east-west movements.

CHAPTER II: CHANGES IN THE SIZE
AND LOCATION OF
POPULATION

A. THE ONTARIO EXPERIENCE IN POPULATION GROWTH 1901-1971

It was more than 150 years after Etienne Brulé in 1611 became the first European to enter what is now Ontario, that white settlement began to mushroom. Shortly after the American Revolution, the population of Ontario numbered about 10,000 people settled along the St. Lawrence upstream plus a few hundred at the Niagara frontier and on the St. Clair River. By 1867 when the Dominion of Canada was formed, the population of Ontario had grown to about 1 1/2 million. Since then, over six million people have been added making Ontario the most populous province in Canada.

From the turn of the century until now, Ontario's share of Canada's population has remained roughly the same, at slightly more than one third of the nation's total (Table 1). In spite of the vast influx of immigrants to Ontario since World War II, the provincial share increased by less than three percentage points.

Within Ontario, Central Ontario is the only planning region which has shown a consistent increase in its proportion of the provincial population, while the shares of both the Eastern and Southwestern Ontario Planning Regions have declined since 1901 (Table 2). The shares of the two Northern Ontario Regions appeared to peak around the 1940's and have declined since then.

TABLE I

ONTARIO'S SHARE OF CANADA'S POPULATION (%)1901 TO 1971

| <u>YEAR</u> | <u>ONTARIO</u> | <u>CANADA</u> | <u>% SHARE</u> |
|-------------|----------------|---------------|----------------|
| 1901 | 2,183,000 | 5,371,000 | 40.6 |
| 1911 | 2,527,000 | 7,207,000 | 35.1 |
| 1921 | 2,934,000 | 8,788,000 | 33.4 |
| 1931 | 3,432,000 | 10,377,000 | 33.1 |
| 1941 | 3,788,000 | 11,507,000 | 32.9 |
| 1951 | 4,598,000 | 14,009,000 | 32.8 |
| 1961 | 6,236,000 | 18,238,000 | 34.2 |
| 1971 | 7,703,000 | 21,568,000 | 35.7 |

SOURCE: Statistics Canada, Census of Canada,
Population, 1961 and 1971.

TABLE 2

COMPARISON OF PLANNING REGIONS' SHARE OF
ONTARIO'S POPULATION, 1901 TO 1971

| YEAR | EASTERN ONTARIO | | CENTRAL ONTARIO | | SOUTHWESTERN ONTARIO | | NORTHEASTERN ONTARIO | | NORTHWESTERN ONTARIO | |
|------|-----------------|---------|-----------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|
| | NO. | % SHARE | NO. | % SHARE | NO. | % SHARE | NO. | % SHARE | NO. | % SHARE |
| 1901 | 507,100 | 23.2 | 953,400 | 43.7 | 597,600 | 27.4 | 96,700 | 4.4 | 28,200 | 1.3 |
| 1911 | 508,700 | 20.1 | 1,192,000 | 47.2 | 581,700 | 23.0 | 175,500 | 6.9 | 69,400 | 2.7 |
| 1921 | 533,100 | 18.2 | 1,493,500 | 50.9 | 613,300 | 20.9 | 211,500 | 7.2 | 82,200 | 2.8 |
| 1931 | 557,200 | 16.2 | 1,805,100 | 52.6 | 683,400 | 19.9 | 277,600 | 8.1 | 108,400 | 3.2 |
| 1941 | 613,200 | 16.2 | 1,974,300 | 52.1 | 714,100 | 18.9 | 348,400 | 9.2 | 137,700 | 3.6 |
| 1951 | 704,200 | 15.3 | 2,479,800 | 53.9 | 849,800 | 15.5 | 397,100 | 8.6 | 166,700 | 3.6 |
| 1961 | 920,700 | 14.8 | 3,542,700 | 56.8 | 1,020,900 | 16.4 | 535,300 | 8.6 | 216,500 | 3.5 |
| 1971 | 1,070,900 | 13.9 | 4,644,900 | 60.3 | 1,180,500 | 15.3 | 582,400 | 7.6 | 224,400 | 2.9 |

SOURCE: Statistics Canada, Census of Canada, Population, 1961 and 1971.

In spite of declining population shares in Eastern and Southwestern Ontario, both regions exhibited an increase in absolute terms during each of the past seven decades except one (Table 3), and the absolute increments in both cases were roughly the same.* However, if the counties containing the metropolitan areas are excluded, both regions showed a loss in population prior to 1921.** On the whole, a somewhat larger amount of the population increase took place outside the metropolitan area in the Eastern Ontario Planning Region than in the Southwestern Ontario Region.

* The exception was between 1901 and 1911 in Southwestern Ontario.

** Also the metropolitan counties excluded were Ottawa/Carleton from the Eastern Ontario Planning Region and Middlesex (London) and Essex (Windsor) from the Southwestern Ontario Planning Region.

TABLE 3

COMPARISON OF NET POPULATION CHANGE
IN EASTERN AND SOUTHWESTERN
ONTARIO PLANNING REGIONS, 1901 TO 1971

| <u>YEAR</u> | <u>INCLUDING METROPOLITAN</u> <u>AREA COUNTIES</u> | | <u>EXCLUDING METROPOLITAN</u> <u>AREA COUNTIES</u> | |
|-------------|---|---------------------------------------|---|---------------------------------------|
| | <u>EASTERN</u> <u>ONTARIO</u> | <u>SOUTHWESTERN</u> <u>ONTARIO</u> | <u>EASTERN</u> <u>ONTARIO</u> | <u>SOUTHWESTERN</u> <u>ONTARIO</u> |
| 1901 - 1911 | 1,500 | -15,900 | -20,900 | -29,000 |
| 1911 - 1921 | 24,500 | 31,600 | -4,900 | -13,300 |
| 1921 - 1931 | 24,000 | 70,100 | 2,700 | 1,500 |
| 1931 - 1941 | 56,100 | 30,700 | 23,600 | 7,300 |
| 1941 - 1951 | 90,900 | 135,800 | 51,200 | 57,900 |
| 1951 - 1961 | 216,600 | 171,000 | 105,900 | 70,700 |
| 1961 - 1971 | 149,900 | 159,700 | 31,200 | 50,900 |
| 1901 - 1971 | 563,500 | 583,000 | 188,800 | 146,000 |

NOTE: The Metropolitan Area Counties excluded were
 Eastern Ontario - Ottawa/Carleton
 Southwestern Ontario - Middlesex (London) and
 Essex (Windsor)

SOURCE: Statistics Canada, Census of Canada,
Population, 1961 and 1971.

B. THE GEOGRAPHICAL PATTERN OF CHANGE, 1941 TO 1971

1. Counties and Centres

In 1941, the population of Ontario was 3.7 million; in 1971, it was 7.7 million - an increase of more than 100 per cent in thirty years. This kind of development pace has caused increasing public concern, not so much about its total magnitude, but more about how the additional people are distributed throughout the province. Indeed, a major aim of the Design for Development program begun in 1967 was to smooth out some conspicuous regional economic inequalities, of which population growth is one of its main facets.* But on what basis can the growth disparities be assessed?

One technique frequently used is to compare changes in these areas with changes in some norm, such as the performance of the nation or the province. However, looking at only the percentage change in a given area often tends to distort the overall picture. For example, an area may grow three times as fast as the province during a given year, but the effect on the province will be small if the area was originally sparsely populated: tripling the original population may mean a total increase of only a few hundred people. To provide a fairly quick and simple indicator which reflects both the percentage change and

*Design for Development, Statement by the Prime Minister of Ontario on Regional Development Policy, April 1966.

the absolute effects of that change, we have used the shift/share analysis,* to compare the performance of a given county or urban centre with that of the province.

The first step in these calculations was to compute the population change which would have occurred in each place (county or centre) if that place had grown at the same rate as the province. The expected increase was then compared with the actual increase. The upward or downward shift of a given county or centre (the difference between its actual increase in population and the expected increase) was expressed as a percentage of the total upward or downward shift of the province. The result provides a quantitative measure of the county's performance relative to the other counties, based on the province as the norm. For example (Table 4), Dufferin and York Counties grew by roughly the same percentage (about 32% and 30% respectively) during 1961-1971, yet the impact of York's growth is many times that of Dufferin's (27.6% vs 0.3%).

Shift analysis was carried out for the periods of 1941-1951, 1951-1961 and 1961-1971 for all counties and incorporated centres in Ontario. The results (Figures 2 to 6) indicate that:

- (i) The population growth among Ontario counties during the past 30 years was unevenly distributed in geographical terms.

Of some 53 counties in the province, only about half a dozen showed consistent upward shifts (i.e., grew more

*Perloff, H. S., and Dodds, V. W., How a Region Grows; Committee for Economic Development, New York, 1963.
 Dunn, E. S. Jr., "A Statistical and Analytical Technique for Regional Analysis," Regional Science Association, Papers and Proceedings, Vol. VI, 1960.

TABLE 4

EXAMPLE OF SHIFT ANALYSIS

| | <u>YORK</u> | <u>DUFFERIN</u> | <u>WENTWORTH</u> |
|--|-------------|-----------------|------------------|
| 1961 POPULATION | 1,733,100 | 16,100 | 358,800 |
| 1971 POPULATION | 2,252,100 | 21,200 | 401,900 |
| ACTUAL INCREASE (A) | 519,000 | 5,100 | 43,100 |
| EXPECTED INCREASE (E) | 407,300 | 3,800 | 84,300 |
| COUNTY UPWARD OR DOWNWARD SHIFT (A-E) | + 111,700 | +1,300 | -41,200 |
| TOTAL UPWARD SHIFT IN PROVINCE | ← | +405,000 | → |
| TOTAL DOWNWARD SHIFT IN PROVINCE | ← | -405,000 | → |
| COUNTY'S SHIFT AS A % OF THE PROVINCE'S * | +27.6% | + 0.3% | -10.2% |
| COUNTY % CHANGE ** | +29.9% | +31.7% | +12.0% |

* That is $\frac{(A - E)}{405,000}$

** That is $\frac{A}{1961 \text{ County's Population}}$

NOTE: The % change for the province for the 1961-1971 period was 23.5%

SOURCE: Statistics Canada, Census of Canada,
Population, 1961 and 1971.

rapidly than the province as a whole), while most of the remaining counties showed downward shifts in all three time periods. Together, the counties encompassing the metropolitan areas of Toronto, Ottawa, and Kitchener/Waterloo accounted for over 95% of the total upward shift in 1961-1971. However, the downward shifts were fairly uniformly distributed among the counties concerned: most deviated less than 5% from the provincial average.

- (ii) The differences in the growth pattern of counties and urban centres are becoming more extreme.

Between 1941 and 1971, the number of counties with an upward shift decreased from eighteen to nine, while the number with a downward shift increased. During the same period, the six COLUC counties increased their share of the province's total increase from about $1/2$ to $2/3$.*

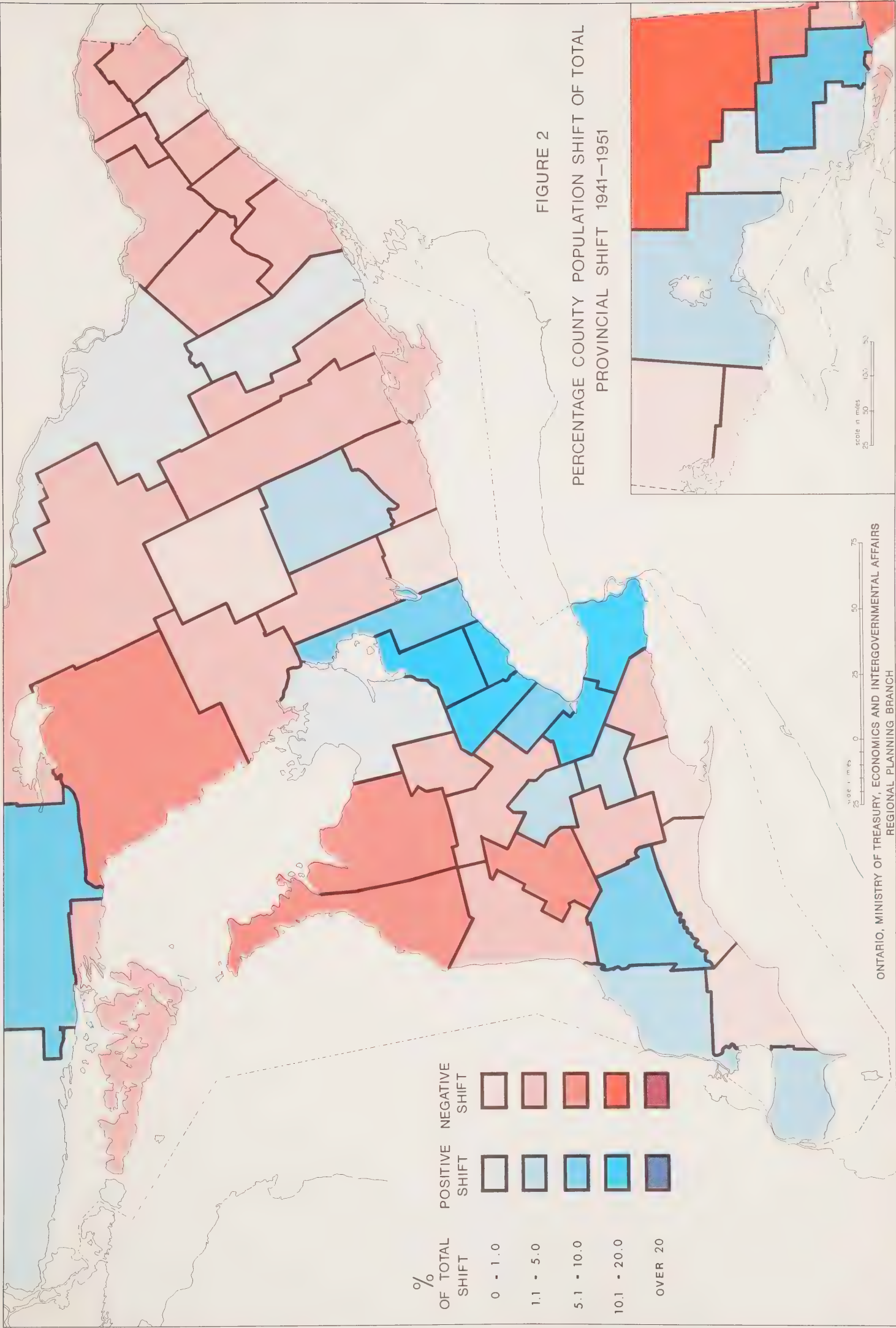
Similarly, the number of urban centres showing a downward shift has also increased. Of some 200 urban centres analyzed, about half showed a negative shift (i.e., below provincial performance) between 1941 and 1951, while $3/4$ did so between 1961 and 1971.

* The six COLUC counties are Durham, Ontario, York, Peel, Halton, and Wentworth.

- (iii) The population growth performance of a number of counties has not been comparable with the provincial performance even though they encompassed large metropolitan centres or other cities.

These include the counties of Wentworth (Hamilton), Niagara Regional Municipality (St. Catharines/Niagara/Welland) and Essex (Windsor). Wentworth showed the sharpest decline of any county in its share of provincial growth: from an upward shift of over 10% in 1941-1951 to a downward shift of over 10% in 1961-1971.** The decline in performance in the Niagara area was to a considerable extent attributable to the loss of some of its locational advantage in electric power, a loss which resulted from the introduction of a more uniform power rate in the province. Similarly, in the case of Essex County, the 1965 American-Canadian auto tariff agreement means that proximity to the U.S. border is no longer a major advantage in the auto industry. This also was a factor for the Niagara area. For example, transportation industries are increasingly locating away from the U.S. border and moving into such counties as Elgin and Waterloo.

** It should be pointed out that in absolute terms, Wentworth County still showed a moderate increase.



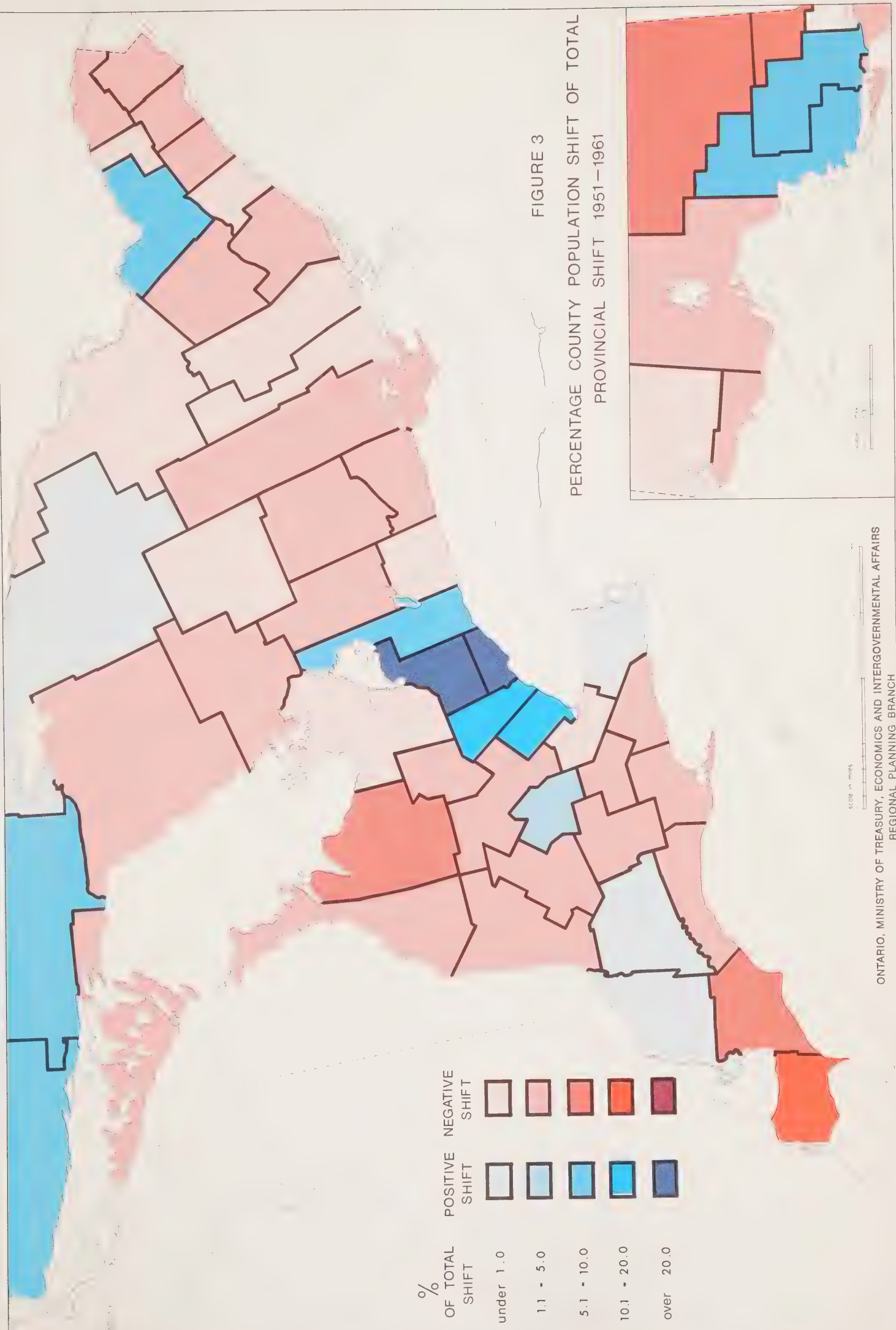


FIGURE 3
PERCENTAGE COUNTY POPULATION SHIFT OF TOTAL
PROVINCIAL SHIFT 1951—1961

SCALE in miles
0 10 20 30 40 50 60 70 80 90 100

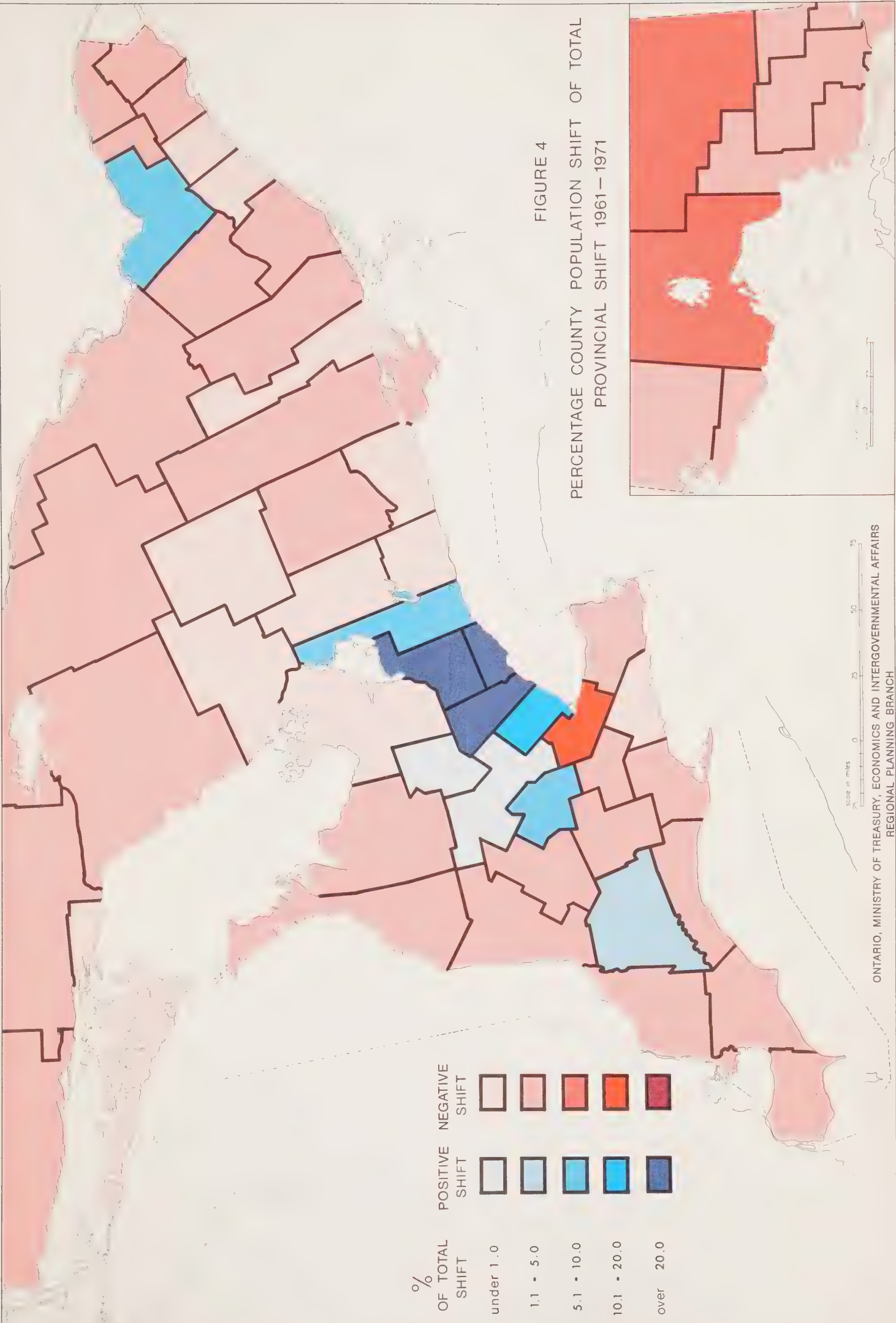


FIGURE 4

PERCENTAGE COUNTY POPULATION SHIFT OF TOTAL
PROVINCIAL SHIFT 1961—1971

| % OF TOTAL SHIFT | POSITIVE SHIFT | | | | | NEGATIVE SHIFT | | | | |
|------------------------|-------------------|-----------|------------|-------------|-----------|-------------------|-----------|------------|-------------|-----------|
| | under 1.0 | 1.1 - 5.0 | 5.1 - 10.0 | 10.1 - 20.0 | over 20.0 | under 1.0 | 1.1 - 5.0 | 5.1 - 10.0 | 10.1 - 20.0 | over 20.0 |
| | | | | | | | | | | |

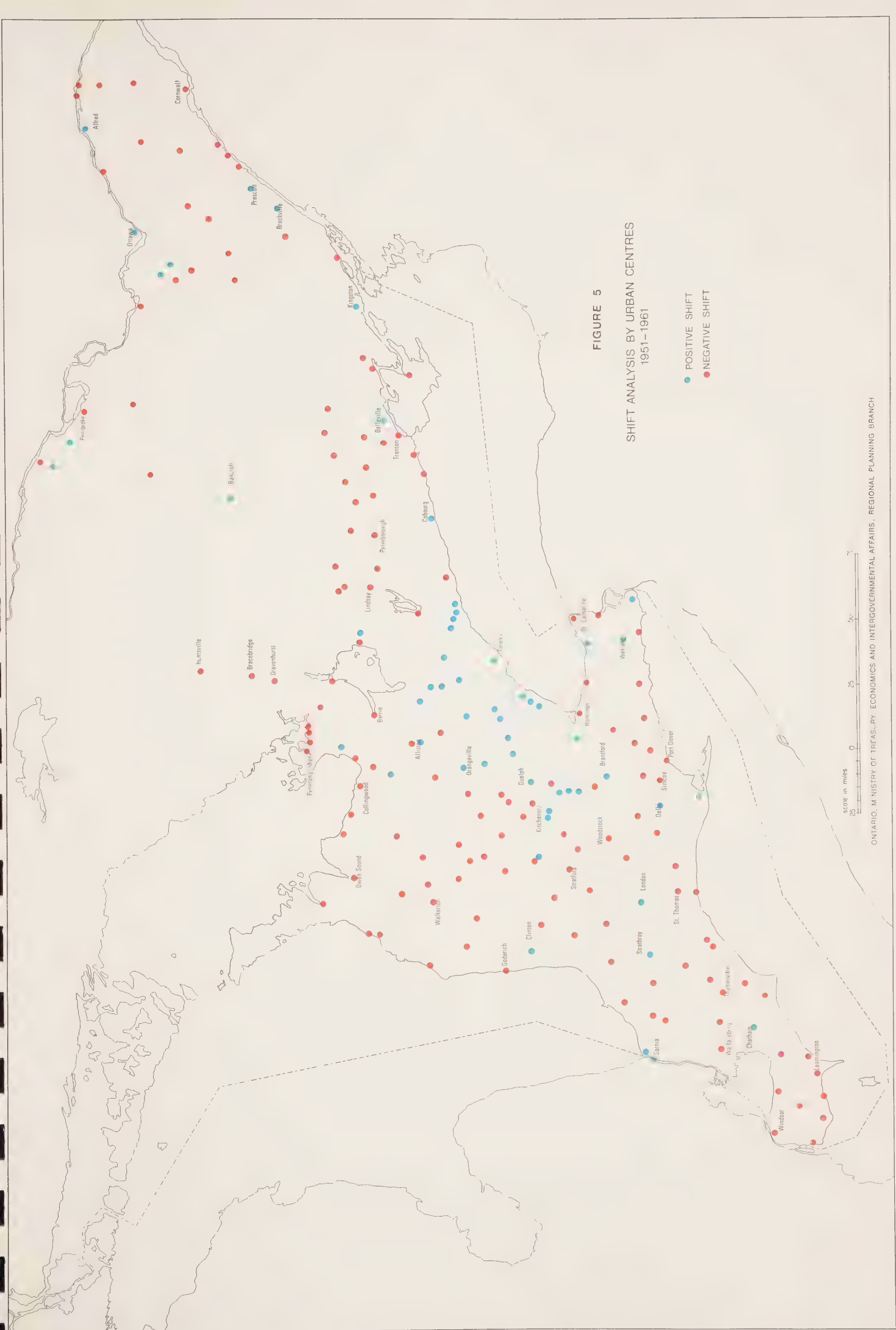
- (iv) There is not a strong correlation between the population growth performance of urban centres and their size.

It is often suggested that the larger the centres, the greater their population growth momentum may be. Apart from some of the very large metropolitan areas, however, many large Ontario centres were found to exhibit a negative shift (e.g., Sarnia, Brantford, and Peterborough). At the same time, a number of small centres showed a positive shift. It appears that the performance of a centre is more strongly related to its proximity to Toronto than to its size.

- (v) Much population growth appears to emanate from Toronto and to proceed in a west and north-west direction.

Halton and Peel counties showed the largest upward shifts in the province. The counties immediately north and west of these grew more slowly, but still increased their share of the province's growth. Both Dufferin and Wellington changed from a downward shift in 1941-1961 to an upward shift in 1961-1971. Similarly, the magnitude of the downward shifts of Bruce and Grey Counties has decreased substantially. Much of this

growth may be due to spillover from the Toronto/Peel/Waterloo area; in any case, many of the centres north and northwest of Toronto have changed from a negative shift in 1941-1951 to a positive shift in 1961-1971.



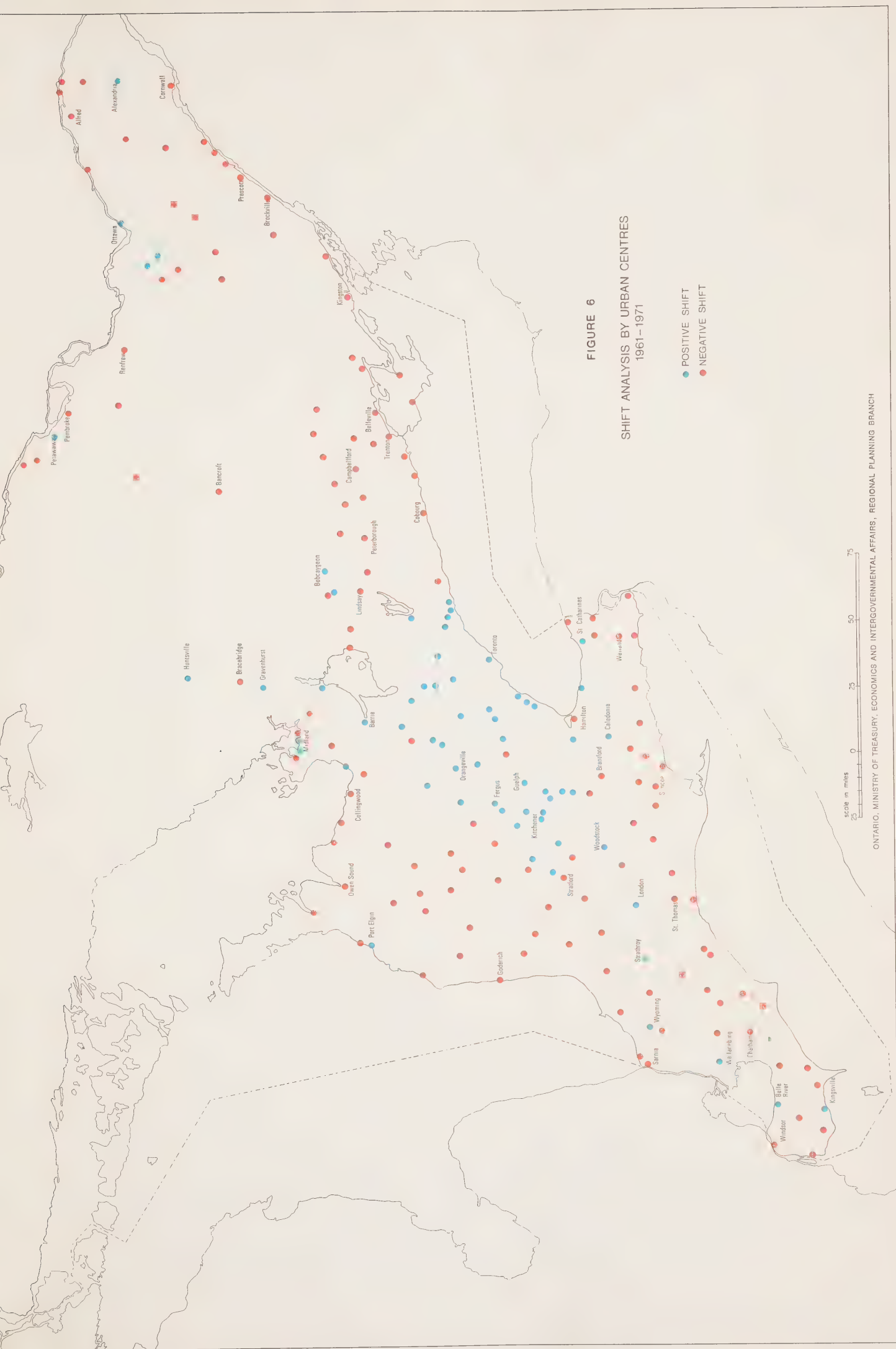


FIGURE 6
SHIFT ANALYSIS BY URBAN CENTRES
1961-1971

- POSITIVE SHIFT
- NEGATIVE SHIFT

scale in miles
0 25 50 75

2. Rural-urban

In addition to regional disparities in population growth, population changes in the rural areas have also received considerable attention. Although in absolute terms, the magnitude of the rural population change was much smaller than that of the urban component, its effect on the utilization of natural resources and quality of environment is comparatively more pronounced. To provide a perspective on the demographic aspects of the issue, changes in the levels and composition of the rural population in Ontario during the past forty years were examined.* Because changing classification of "urban" and "rural" (see Appendix A) has made historical comparison of small geographical areas very difficult, areas smaller than the province were studied only for the period between 1961-1971. The following is a list of the major observations based on information contained in Tables 5 and 6 and Figures 7 and 8.

- (i) The total rural population in Ontario declined only slightly over the past forty years because the loss of rural farm population has been counterbalanced by an increase in rural non-farm population. Between 1931 and 1971, rural farm population declined by about 420,000 while the rural non-farm component increased by about 370,000. In relative terms,

* For a discussion of some of the other issues relating to the rural areas in Ontario, see Population, Growth and Land Use Planning, a report prepared by Hill, R.G.H. of the Ontario Ministry of Agriculture and Food for the Central Ontario Lakeshore Urban Complex (COLUC) in 1974, and Planning for Agriculture in Southern Ontario, prepared by the Centre for Resources Development, University of Guelph, for the ARDA Directorate of Ontario, 1972.

TABLE 5

POPULATION DISTRIBUTION BY URBAN,
RURAL FARM AND RURAL NON-FARM,
ONTARIO, 1931 TO 1971

| YEAR | RURAL FARM | | RURAL NON-FARM | | TOTAL RURAL FARM AND NON-FARM | | URBAN | | TOTAL ONTARIO | |
|-------------------|------------|------|----------------|------|----------------------------------|------|-----------|------|------------------|-----|
| | NO. | % | NO. | % | NO. | % | NO. | % | NO. | % |
| 1931 ¹ | 785,600 | 22.9 | 628,700 | 18.3 | 1,414,300 | 41.2 | 2,017,600 | 58.8 | 3,231,900 | 100 |
| 1941 ¹ | 694,700 | 18.3 | 822,700 | 21.7 | 1,517,400 | 40.1 | 2,270,300 | 59.9 | 3,787,700 | 100 |
| 1951 ² | 638,700 | 13.9 | 583,000 | 12.7 | 1,221,700 | 26.6 | 3,375,800 | 70.7 | 4,597,500 | 100 |
| 1961 ² | 502,600 | 8.1 | 792,200 | 12.7 | 1,294,900 | 20.8 | 4,941,200 | 79.2 | 6,236,100 | 100 |
| 1961 ³ | 505,700 | 8.1 | 906,900 | 14.5 | 1,412,600 | 22.7 | 4,823,500 | 77.3 | 6,236,100 | 100 |
| 1971 ⁴ | 363,600 | 4.7 | 995,800 | 12.9 | 1,359,500 | 17.6 | 6,343,600 | 82.4 | 7,703,100 | 100 |

NOTE:1) Information about the rural farm and rural non-farm population was based on the 1931 classification; the urban component was determined by residual method

2) Based on the 1956 classification

3) Based on the 1961 classification

4) Based on the 1971 classification. According to Statistics Canada, the 1971 definition of "rural" and "urban" population was not much different from the 1961

For a more detailed explanation of definitions, see Appendix A.

the reduction in the farm population was fairly substantial. The amount represents over 50% of the entire farm population in 1931. However, a number of considerations should be kept in mind in interpreting the information. First, part of the decline is a result of normal farm adjustment processes. Second, despite the fairly substantial reduction in farm labour, the volume of agricultural production has been expanding, the result of an increase in the productivity and acreage of improved farm land.

In addition, the outflow of farm population has only an inconsequential effect on the development pressure of the metropolitan centres. For example, even if we assumed that the entire outflow of farm population between 1951 and 1971 (slightly over 1/4 million) was destined for the six major metropolitan areas in the province (Toronto, Hamilton, Ottawa, London, Kitchener/Waterloo and Windsor), this number represents only about 15% of the population growth of the latter during the same period.* On the other hand, the increase of non-farm population in the rural areas has created a number of problems far more serious than those created by the decline in farm population. Examples include

* In fact, not all the rural farm people migrated to the major metropolitan areas in Ontario. See subsequent section on migration movements.

TABLE 6

COMPARISON OF AGE DISTRIBUTION (%) BY URBAN,
RURAL FARM AND RURAL NON-FARM POPULATION
ONTARIO, 1931-1971

| | <u>1931</u> | <u>1941</u> | <u>1951</u> | <u>1961</u> | <u>1971</u> |
|-----------------------|-------------|-------------|-------------|-------------|-------------|
| <u>URBAN</u> | | | | | |
| 0-19 | 35.4 | 31.2 | 31.6 | 37.8 | 36.9 |
| 20-44 | 39.2 | 39.8 | 39.5 | 35.6 | 35.7 |
| 45 + | 25.4 | 29.0 | 28.9 | 26.7 | 27.4 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>RURAL</u> | | | | | |
| 0-19 | 40.1 | 36.8 | 39.2 | 44.1 | 42.7 |
| 20-44 | 34.6 | 35.5 | 33.3 | 29.7 | 29.5 |
| 45 + | 25.3 | 27.7 | 27.4 | 26.2 | 27.9 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| <u>RURAL FARM</u> | | | | | |
| 0-19 | | | 38.5 | 44.4 | 42.2 |
| 20-44 | N.A. | N.A. | 35.8 | 31.3 | 30.5 |
| 45 + | | | 25.7 | 24.2 | 27.4 |
| TOTAL | | | 100.0 | 100.0 | 100.0 |
| <u>RURAL NON-FARM</u> | | | | | |
| 0-19 | | | 40.0 | 43.5 | 44.0 |
| 20-44 | N.A. | N.A. | 31.0 | 26.8 | 26.7 |
| 45 + | | | 29.1 | 29.7 | 29.3 |
| TOTAL | | | 100.0 | 100.0 | 100.0 |

SOURCES: - Population, 1921 Census of Canada, Vol. II, Table 8
 - Population--Ages, 1931 Census of Canada, Vol. III, Table 1
 - Population--Ages, 1941 Census of Canada, Vol. III, Table 3
 - Population--General Characteristics, 1951
 Census of Canada, Vol. I, Table 21
 - Population--Marital Status of Age Groups,
 1961 Census of Canada, Bulletin 1.3-1, Table 78
 - Population--Age Groups, 1971 Census of Canada 1.2-3, Table 8

N.A. Not Available.

fragmentation and reduction of prime quality of land available for agriculture, recreation and other uses, land speculation, and possible conflicts in the life style between the farm and the non-farm residents.*

- (ii) Although the rural population, especially the rural farm people, had a smaller proportion of the main labour force age groups (20-44) than the urban population, the percentages appear to have been stable for the past twenty years.

For example, in 1971, the proportion of the farm population in the 20-44 age group was about 30% compared with about 35% for the urban population. These percentages were roughly the same in 1961.

- (iii) Nearly all townships in southern Ontario experienced a net loss in farm population from 1961-1971. However, because of the influx of rural non-farm population, about 2/3 of all the townships examined showed a net gain in rural population.

Most of the townships which showed an absolute reduction in rural population are concentrated

* For more in-depth discussions on the problems resulting from an increase in rural non-farm population in Ontario, see Punter, J., The Impact of Exurban Development on Land and Landscape in the Toronto Centred Region, 1954-1971, unpublished Ph. D. Thesis, York University, 1974; Rodd, S., "Identifying the Issues in Rural Land Planning", Notes on Agriculture, Vol. 10, April 1974, University of Guelph; Rural Residential Development by the Committee of Adjustment or the Land Division Committee, Trends and Policy Implications for the COLUC Area, Unpublished Discussion Paper, Regional Planning Branch, 1974, and Brown R., Exurban Development in Southwestern Ontario, Staff Paper No. 2, Regional Planning Branch, 1975.

in three broad locations - the area adjacent to the Quebec border, the Canadian shield just west of Ottawa-Carleton, and the area surrounding Middlesex County.

- (iv) Most of the townships showed an absolute increase in rural non-farm population (over 90% of the townships examined) between 1961 to 1971. The areas with the highest rate of gain were those surrounding Toronto, Ottawa and Windsor. No noticeable pattern was observed for the London and Kitchener/Waterloo areas.* Proximity to metropolitan centres, viability of the agricultural economy, degree of local planning restrictions, topography, and landscapes are all major factors affecting the levels of rural non-farm population increase. However, some of these factors operate only in certain locations. For example, in spite of its physical attractiveness, the rate of rural non-farm increase in the marginal agricultural areas of the Canadian shield and associated limestone plains (marginal farm land) was much lower than the provincial average. This is largely because of the Shield's distance from large population centres. In the Windsor vicinity, on the other hand, the lack of planning control was a prime consideration.

* It has been suggested that up to the mid 1960's, the non-urban highly agricultural counties of the Central and Southwestern region have resisted selling their land or had no great pressure from buyers. But since then, the key agricultural estate of Ontario is selling cropland, see Rodd S. "A Remarkable Change in the Rural Land Market", Notes on Agriculture, Vol. X, 1974, University of Guelph.

FIGURE 7: ABSOLUTE CHANGES IN RURAL FARM AND NON-FARM
POPULATION BY TOWNSHIPS, 1961-1971

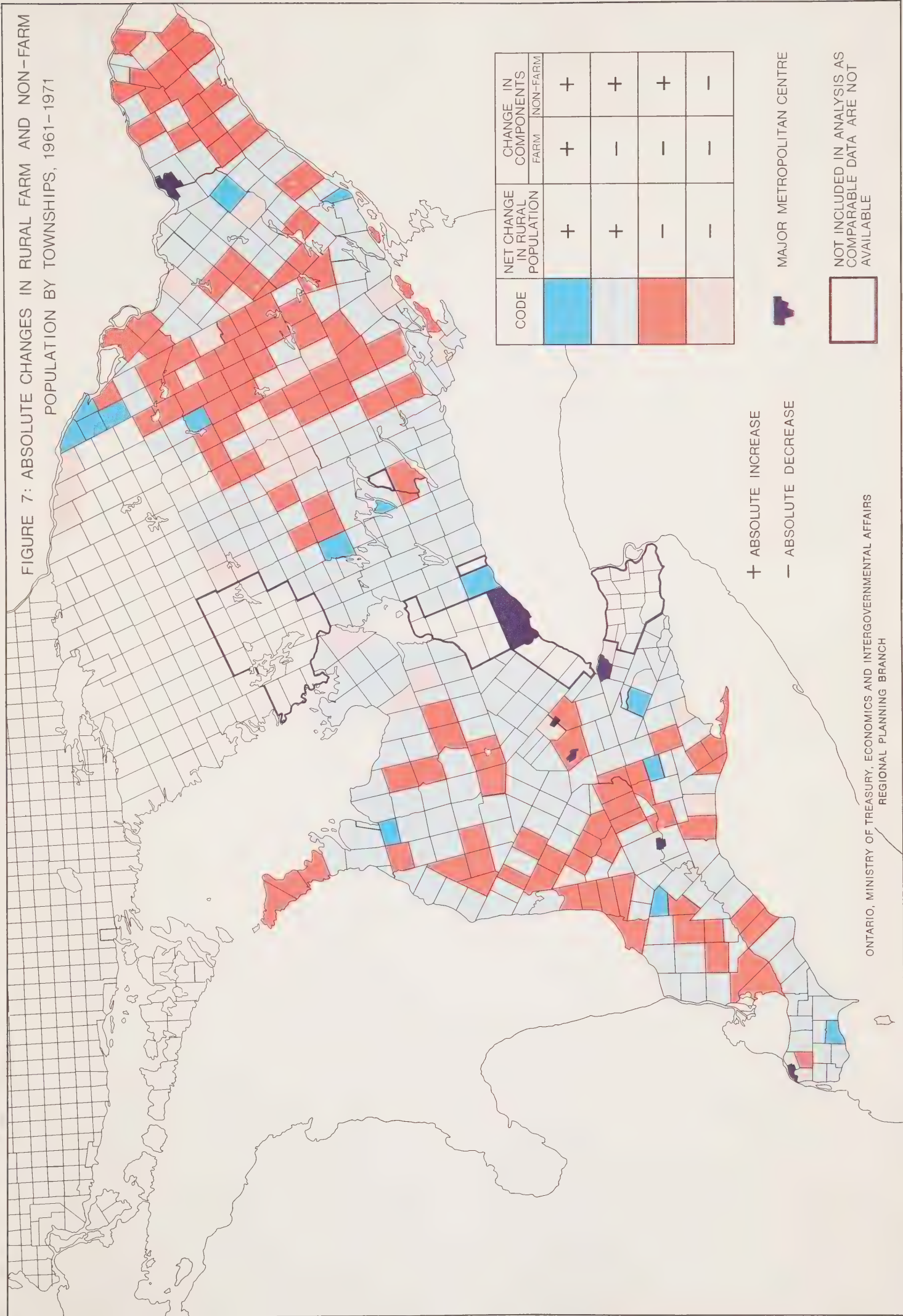
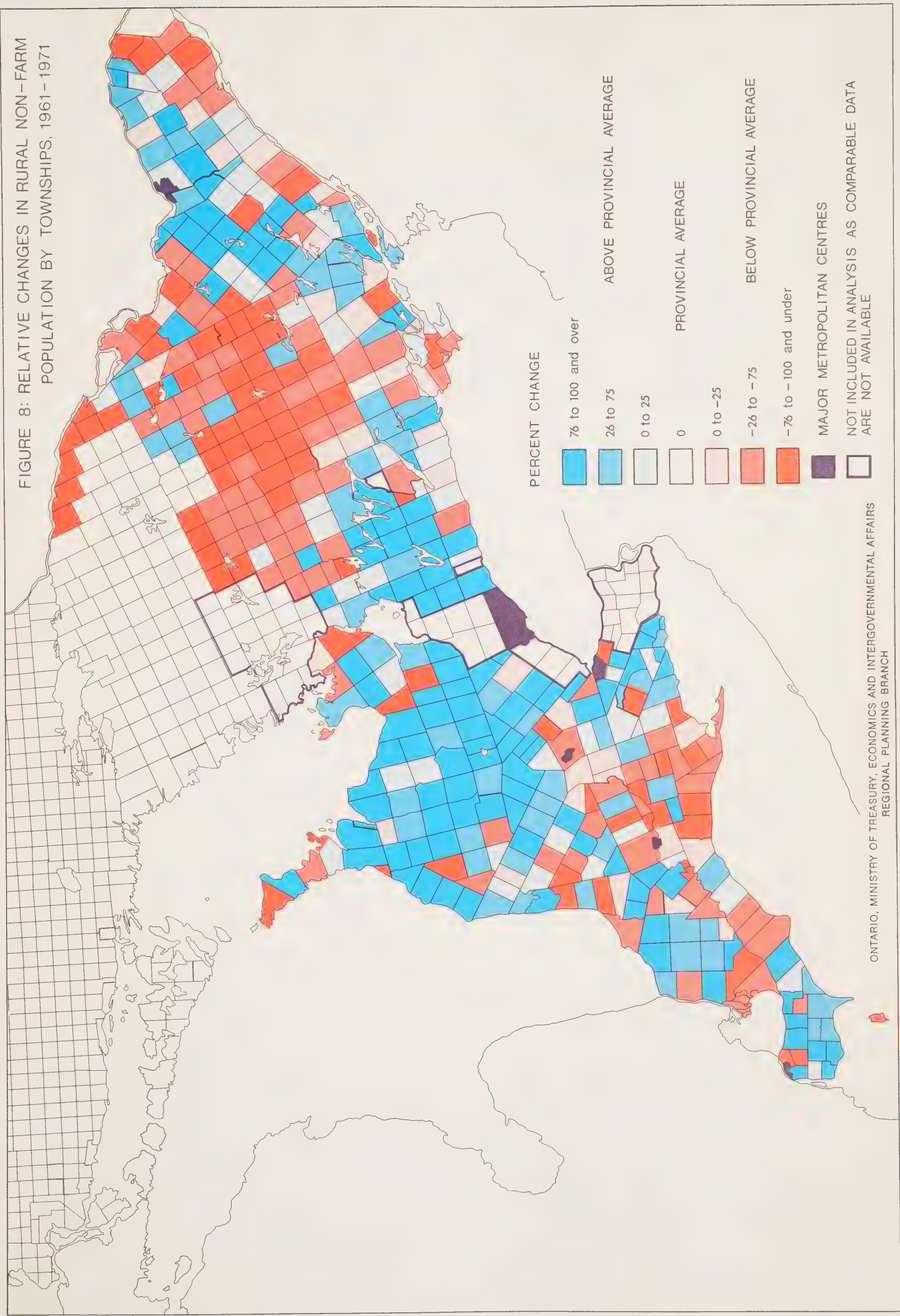


FIGURE 8: RELATIVE CHANGES IN RURAL NON-FARM
POPULATION BY TOWNSHIPS, 1961-1971



C. FACTORS AFFECTING POPULATION DISTRIBUTION

Why do geographical areas grow at different rates? Is it because of the internal population structure such as its age profile and fertility rate? Or is it due to other development features of the area not accounted for by its demographic characteristics?* In order to obtain a perspective on the relative impact of these factors, we used a variation on the shift/share analysis called regional/structural analysis.** After solving a series of equations, the analytical process yielded two sets of results - the structural and regional components (Table 7). The former is essentially a measure of the effect age distribution has on population. It is an indication of the area's capacity to grow through natural increase. A positive structural component results if the area's age structure is more concentrated in those age groups which have very high "cohort survival" rate (i.e. births minus deaths),*** whereas a positive regional component reflects an area of high in-migration and thus implies that the area has some advantage for population growth not generally available to other areas.

* Features such as the area's resources, economy, soil, and proximity to transportation or to metropolitan centres.

** For a detailed description of the technique applied to population analysis, see Paris J.D., "Regional/Structural Analysis of Population Changes," Regional Studies, Vol. 4, 1970, and G. Hodge and J.D. Paris, "Population Growth and Regional Development," A Paper Presented to the Conference on Implications of Demographic Factors for Educational Planning and Research, OISE, Toronto, 1969.

*** An analogy can be drawn from the economic performance of a region, which to some extent is influenced by whether the region has a disproportionate share of fast-growing or slow-growing industries.

TABLE 7

EQUATION EMPLOYED IN THE REGIONAL/
STRUCTURAL ANALYSIS

| | | | |
|----|---|-----------------|---|
| 1. | $p_i^h = \frac{\sum_j G_j n_{ij}}{\sum_j n_{ij}}$ | where p_i^h = | hypothetical growth rate for the county (i) (the rate at which the county would have grown if each of its age groups had grown at the same rate as those of the province as a whole). |
| | | G_j = | growth rate of age group (j) of the province during the period of interest. |
| | | n_{ij} = | number of people in age group (j) in county (i) at beginning of period of interest. |
| 2. | $S_i = p_i^h - P$ | P = | provincial growth rate |
| | | S_i = | structural component for county (i) |
| 3. | $R_i = P_i - p_i^h$ | P_i = | actual growth rate for county (i) |
| | | R_i = | regional component for county (i) |

SOURCE: Paris J.D., "Regional/Structural Analysis of Population Changes", Regional Studies, Vol. 4, 1970, and Hodge G. and Paris J.D. "Population Growth and Regional Development", a paper presented to the Conference on Implications of Demographic Factors for Educational Planning and Research, O.I.S.E., Toronto, 1969

Structural and regional components have been compared for each county in Ontario for each of the three time periods 1941-1951, 1951-1961, and 1961-1971. Several conclusions can be deduced from the findings summarized in Table 8.

- (i) Migration tends to exert a much stronger influence on the growth of the county than the demographic structure. (i.e. age group distribution and fertility rate). This is evident from the fact that the magnitude of the regional component is many times larger than the structural component.
- (ii) The regional component appears to fluctuate far more over time than the structural component.
- (iii) Many of the counties exhibited a positive structural component and at the same time fairly large negative regional components. This implied that while many counties possess an advantage in age structure, they lack the capacity to hold their population, and thus constitutes a disadvantage to population growth in the county.
- (iv) The number of counties with a positive regional component has also declined. By 1971, only a few of the metropolitan area counties exhibited

TABLE 8

SUMMARY OF STRUCTURAL AND REGIONAL COMPONENTS
BY COUNTIES, 1941 - 1971

| <u>REGION/COUNTY</u> | <u>STRUCTURAL COMPONENTS^(S_i)</u> | | | <u>REGIONAL COMPONENTS^(R_i)</u> | | |
|-----------------------------|--|------------------|------------------|--|------------------|------------------|
| | <u>1951/1941</u> | <u>1961/1951</u> | <u>1971/1961</u> | <u>1951/1941</u> | <u>1961/1951</u> | <u>1971/1961</u> |
| <u>EASTERN ONTARIO</u> | | | | | | |
| DUNDAS | 0.9 | 1.7 | 1.2 | -24.7 | -28.8 | -23.0 |
| FRONTENAC | 0.4 | -0.2 | 1.0 | 1.3 | -3.0 | -8.3 |
| GLENGARRY | 1.1 | 3.8 | 1.5 | -28.0 | -30.8 | -28.8 |
| GRENVILLE | 0.6 | 1.2 | 0.7 | -15.4 | -2.7 | -17.9 |
| HASTINGS | 0.5 | 1.5 | 0.2 | -4.6 | -11.4 | -17.3 |
| LANARK | 0.6 | 1.3 | 1.9 | -14.6 | -23.7 | -20.6 |
| LEEDS | 0.7 | 0.8 | 1.3 | -14.4 | -15.6 | -18.0 |
| LENNOX & ADDINGTON | 0.9 | 2.2 | 0.4 | -16.5 | -16.4 | -4.3 |
| OTTAWA - CARLETON | -0.4 | -0.1 | 0.5 | -1.7 | 10.0 | 7.7 |
| PRESCOTT | 0.8 | 4.4 | 1.5 | -21.0 | -33.5 | -22.8 |
| PRINCE EDWARD | 1.0 | 0.8 | 0.3 | -11.6 | -22.7 | -26.0 |
| RENFREW | 0.3 | 1.4 | 0 | 0.2 | -2.6 | -22.1 |
| RUSSELL | 1.0 | 5.5 | 1.1 | -22.3 | -27.9 | -18.9 |
| STORMONT | 0.8 | 2.6 | 0.3 | -3.7 | -18.8 | -17.9 |
| <u>CENTRAL ONTARIO</u> | | | | | | |
| BRANT | 0 | 0.4 | 0.9 | 7.1 | -20.9 | -9.0 |
| DUFFERIN | 0.4 | 1.5 | 1.1 | -18.3 | -26.6 | 7.1 |
| DURHAM | 0.3 | 0.8 | 0 | -2.3 | -3.9 | -4.5 |
| HALDIMAND | 0.4 | 1.3 | 0.9 | -11.3 | -20.1 | -8.5 |
| HALIBURTON | 1.2 | 3.0 | 0.7 | -8.0 | -22.2 | -22.5 |
| HALTON | 0.1 | 0.5 | -2.8 | 32.8 | 107.0 | 57.4 |
| MUSKOKA | 0 | 1.6 | 0.8 | -8.2 | -29.1 | -4.7 |
| NIAGARA | -0.3 | 0.4 | -0.1 | 12.7 | 1.1 | -4.2 |
| NORFOLK | 0.9 | 1.5 | 1.3 | -2.4 | -18.9 | -17.6 |
| NORTHUMBERLAND | 0.4 | 1.4 | 0.6 | -13.0 | -11.9 | -9.1 |
| ONTARIO | -0.1 | -0.1 | -1.0 | 11.2 | 20.5 | 21.9 |
| PEEL | 0 | 1.3 | -2.0 | 55.1 | 63.4 | 111.0 |
| PETERBOROUGH | 0.3 | 0.8 | 0.1 | 6.6 | -10.8 | -8.6 |
| SIMCOE | 0.1 | 1.1 | 0.7 | 0.8 | -4.0 | -2.8 |
| VICTORIA | 0.2 | 1.0 | 1.4 | -17.0 | -26.9 | -9.8 |
| WATERLOO | -0.4 | -0.5 | 0.1 | 6.8 | 5.0 | 20.1 |
| WELLINGTON | 0 | 0.2 | 0.6 | -8.8 | -9.2 | 4.1 |
| WENTWORTH | -0.6 | -1.0 | -0.4 | 7.9 | 0.3 | -11.1 |
| YORK/METRO | -0.8 | -2.2 | -0.2 | 3.1 | 13.9 | 6.6 |
| <u>SOUTHWESTERN ONTARIO</u> | | | | | | |
| BRUCE | 1.1 | 1.9 | 1.3 | -23.4 | -33.3 | -14.7 |
| ELGIN | 0.5 | -0.1 | 1.5 | -1.6 | -22.3 | -19.0 |
| ESSEX | -0.4 | 0.3 | -0.1 | 3.6 | -17.0 | -4.7 |
| GREY | 0.7 | 1.2 | 1.3 | -19.0 | -31.6 | -17.7 |
| HURON | 0.9 | 0.6 | 1.4 | -9.6 | -27.0 | -26.5 |
| KENT | 0.7 | 1.2 | 0.6 | -2.8 | -23.8 | -11.0 |
| LAMBTON | 0.4 | 0.9 | -0.3 | 9.9 | -0.3 | -11.3 |
| MIDDLESEX | 0.2 | -0.8 | 0.5 | 5.9 | 1.8 | 3.4 |
| OXFORD | 2.6 | 0.5 | 0.7 | -8.6 | -16.2 | -10.2 |
| PERTH | 0.1 | 0.3 | 1.0 | -15.7 | -26.6 | -14.9 |
| <u>NORTHEASTERN ONTARIO</u> | | | | | | |
| ALGOMA | 0.4 | 1.9 | -0.8 | 2.2 | 35.2 | -13.3 |
| COCHRANE | 1.6 | 3.2 | 0 | -19.1 | -24.7 | -23.3 |
| MANITOULIN | 2.2 | 4.0 | 0.8 | -20.2 | -39.9 | -26.5 |
| NIPISSING | 0.4 | 3.5 | 0 | -5.2 | 0.6 | -11.7 |
| PARRY SOUND | 1.1 | 3.7 | 1.1 | -31.5 | -31.0 | -22.5 |
| SUDBURY | 2.3 | 2.7 | -0.8 | 11.9 | 13.0 | -3.3 |
| TIMISKAMING | 2.0 | 3.5 | 0.9 | -24.6 | -37.2 | -33.2 |
| <u>NORTHWESTERN ONTARIO</u> | | | | | | |
| KENORA | 1.2 | 1.7 | -0.1 | -5.1 | -6.0 | -20.0 |
| RAINY RIVER | 0.8 | 2.8 | -0.6 | -6.5 | -18.5 | -25.8 |
| THUNDER BAY | -0.4 | 0.4 | -0.4 | 2.7 | -4.5 | -18.1 |

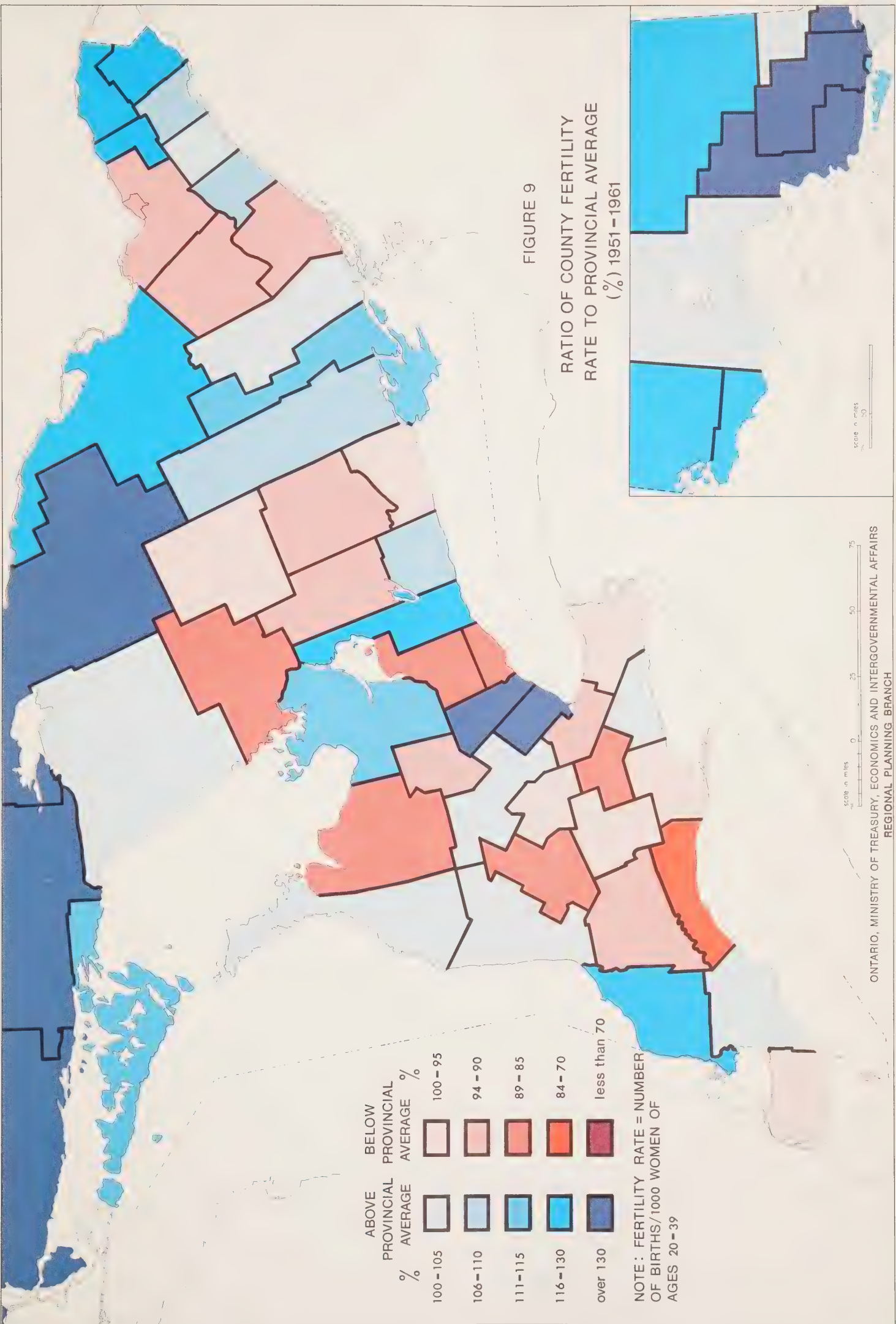
a positive regional component and thus showed that they have a distinct advantage in competing for migrants. These include Ottawa-Carleton, Waterloo, Middlesex (London) and the counties immediately surrounding Toronto. However, both Wentworth (Hamilton) and Essex (Windsor) showed negative regional components.

Generalizing from the above observations, one can say that the regional component is a far more influential and at the same time less stable factor than the structural component in determining the difference in population distributions among geographical areas. This is not unexpected, in that variations in the age structure over time is far less pronounced than migration, which can fluctuate fairly drastically because of changes in the economy. Secondly, the geographical differences in fertility between various parts of the province are not really substantial and the trend is narrowing.* In 1951 - 1961, there were 14 counties which had a fertility rate either above or below the provincial average by over 15%. (Figure 9). Subsequently, in 1961 - 1971, the numbers of counties in this category were reduced to 4 (Figure 10). Most of the counties were within ten percent of the provincial average.**

* The fertility rate as used here is termed the total fertility and in simple terms is defined as the total number of births which each woman would have produced throughout their lifetime assuming no mortality. For a more comprehensive definition, refer to a forthcoming report prepared by the Economic Analysis Branch, TEIGA.

** Northern Ontario was the only area which has been consistently above the provincial average to a substantial degree.

In Ontario, the impact of migration is further complicated by the fact that a substantial portion of the migrants come from other countries. Their flows are thus influenced by federal immigration policy, as well as economic and political events outside Canada. In view of the importance of migration to the spatial pattern of population growth, it is essential that the nature and the extent of the impact should be understood more fully. This is the central focus of the next chapter.

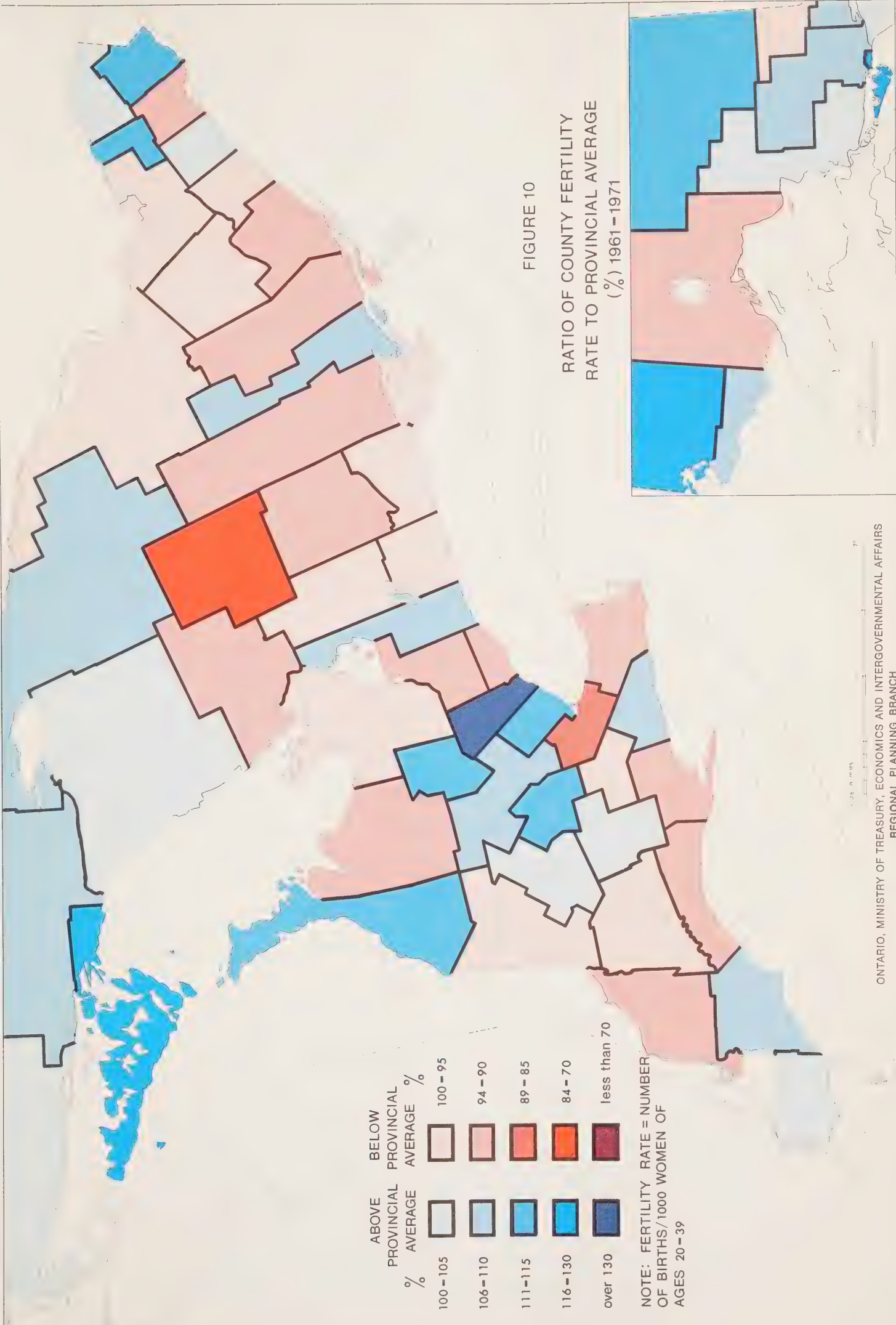


| PROVINCIAL AVERAGE % | | BELOW PROVINCIAL AVERAGE % | |
|----------------------|----------------------|----------------------------|---------------------|
| 100 - 105 | [light blue box] | 100 - 95 | [light red box] |
| 106 - 110 | [medium blue box] | 94 - 90 | [medium red box] |
| 111 - 115 | [dark blue box] | 89 - 85 | [dark red box] |
| 116 - 130 | [very dark blue box] | 84 - 70 | [very dark red box] |
| over 130 | [darkest blue box] | less than 70 | [black box] |

NOTE: FERTILITY RATE = NUMBER OF BIRTHS/1000 WOMEN OF AGES 20-39

FIGURE 9
RATIO OF COUNTY FERTILITY RATE TO PROVINCIAL AVERAGE (%) 1951-1961





D. THE ROLE OF MIGRATION

Throughout the history of Ontario, migration especially immigration from other countries, has been responsible for a substantial portion of the population growth in the province. The impact of migration on development has been particularly evident during the past three decades, more so than at any other time.* Between 1941 and 1971, the population of Ontario grew by about four million, of which roughly 40% was attributable to immigration from other countries and provinces (Table 9). Since the 1950's, the impact of migration, especially its international components, has become more pronounced, because the Ontario fertility rate has declined.

1. International Movements Affecting Ontario

Of the three categories of migration -- international, interprovincial, and intraprovincial -- the first accounts for the greatest number of migrants. More significantly, international migration has tended to fluctuate markedly over the years, according to government policy at the time, as well as the political and economic conditions in Canada and those in the countries of origin.* During the past three decades about 3 1/2 million immigrants arrived in Canada. Of these, over half had given Ontario as their destination (Appendix B). At the same time, Ontario lost

* The largest influx of immigrants to Canada occurred around the mid-1910's. However, the immigrants tended to spread across the country. Ontario, which now receives over half the national total, received only about a third, even into the 1940's and 1950's.

** For a detailed analysis of the Canadian immigration policy in the post-war years, see Hawkins F., "Canada and Immigration: Public Policy and Public Concern", McGill-Queen's University Press, 1972.

TABLE 9

COMPONENTS OF POPULATION GROWTH, ONTARIO
1941 - 1971

| COMPONENTS OF POPULATION GROWTH | 1941 | - | 1951 | 1951 | - | 1961 | - | 1971 |
|---|---------|---|----------|---------|---|-----------|---|-----------|
| NATURAL INCREASE | | | 520,500 | | | 951,900 | | 859,900 |
| TOTAL NET MIGRATION, | 289,400 | | | 686,600 | | 607,100 | | |
| NET INTERNATIONAL, | | | 154,200* | | | 562,200* | | 473,800** |
| NET INTERPROVINCIAL, | | | 135,200* | | | 124,400* | | 133,300** |
| TOTAL POPULATION INCREASE | | | 809,900 | | | 1,638,500 | | 1,467,000 |
| NATURAL / TOTAL INCREASE / INCREASE, % | | | 64.3% | | | 58.1% | | 58.6% |
| INTER - / TOTAL NATIONAL / INCREASE, % | | | 19.0% | | | 34.3% | | 32.3% |
| MIGRATION / | | | | | | | | |
| INTER - / TOTAL PROVINCIAL / INCREASE, % | | | 16.7% | | | 7.6% | | 9.1% |
| MIGRATION / | | | | | | | | |

SOURCE: * Population Statistics, Ontario, 1969.
 Ministry of Treasury and Economics.
 ** Estimated on the basis of unpublished data, DBS
 and Ministry of Treasury, Economics and Intergovernmental Affairs.

a large number of people, mainly to the United States. The net gain was about 60% (Table 10) of the total immigration. Much of the influx of immigrants occurred during the mid-1950's and the mid-1960's (Appendix C).

The initial emphasis of the post-war immigration policy was to direct many foreign immigrants to the rural and more remote parts of the country. Despite such effort, a substantial number of them eventually found their way to the cities, and the policy was eventually abandoned. Secondly, throughout the years, the composition of the immigrants by ethnic origin has also undergone some changes as well. In the past, for a number of reasons some of which were due to deliberate government efforts, immigration to Canada has been largely a movement from Europe and the United States.* In 1967, new immigration regulations were introduced which aimed at minimizing some of the policy's discriminatory elements. In subsequent years, although Europeans still represented the largest immigration groups, the proportion of non-Europeans has risen somewhat.** Much of the immigration stream flowed to a few urban centres, particularly Toronto. Together with their diversified ethnic characteristics, the migrants have been one of the major forces in shaping the spatial development as well as the social and cultural character of the province. A review of some of the information

*For specific reasons, see F. Hawkins, *ibid.*

**In 1974 immigration regulations were further modified to relate closely with the labour market and the effect on the composition of immigrants by ethnic origin is unknown at this time.

TABLE 10

PROPORTION OF NET INTERNATIONAL MIGRANTS TO THE NUMBER OF IMMIGRANT ARRIVALS
TO CANADA WHO GAVE ONTARIO AS THEIR PROVINCE OF DESTINATION
1941 - 1971

| <u>YEAR</u> | <u>ESTIMATED NET INTERNATIONAL MIGRANTS TO ONTARIO</u> | <u>IMMIGRANTS TO CANADA GIVING ONTARIO AS INTENDED DESTINATION</u> | <u>% OF NET INTER- NATIONAL MIGRANTS TO TOTAL IMMIGRANTS TO ONTARIO</u> |
|-------------|--|--|---|
| 1941-1951 | 154,000* | 290,000* | 53% |
| 1951-1961 | 562,000* | 800,000* | 70% |
| 1961-1971 | 473,000** | 766,000** | 62% |
| 1941-1971 | 1,189,000 | 1,856,000 | 64% |

SOURCE: * Population Statistics, Ontario, 1969
 Ministry of Treasury and Economics

 ** Estimated on the basis of unpublished data DBS,
 and Ministry of Treasury, Economics and
 Intergovernmental Affairs

shown on Tables 11 and 12 and Figures 11 and 12 provide an appreciation of the impact on various parts of Ontario in the past 11 years.

- (i) The seventeen largest urban centres attracted over 4/5 of the immigrants to Ontario (Table 11), Toronto received over half of the total; the remaining urban centres received from 1 to 8% each. Relative to its population, Toronto's share has been much greater than that of other major urban centres. For example, in 1971, the population of Metropolitan Toronto was about four times that of Hamilton and six times that of Ottawa, yet Toronto's share of that year's immigrants was more than ten times the share of either of the other two centres. It is estimated that net international migration accounted for over 60% of the total population growth in the Toronto/Hamilton area during the past decade.
- (ii) The pattern of distribution has remained very stable. (Table 11). With one or two exceptions, each urban centre has continued to receive an almost constant share of Ontario's immigrants over the 1960 to 1972 period.
- (iii) The only major urban centre which shows a noticeable declining trend is Hamilton whose share of Ontario immigrants has recently declined from nearly 8% to slightly over 4% of the provincial total (Table 11).

TABLE 11
PER CENT DISTRIBUTION OF INTERNATIONAL IMMIGRANTS BY INTENDED URBAN CENTRES IN ONTARIO,
1961 - 1972

| URBAN CENTRE | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | TOTAL 1961 - 1971 |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| BRANTFORD | 0.6 | 0.5 | 0.7 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.5 | 0.4 | 0.3 | 0.4 | 0.5 |
| CAMBRIDGE | | | | | | | | | | | | | | |
| GALT | | N.A. | | | 0.5 | 0.9 | 0.8 | 0.7 | 0.5 | 0.6 | 0.6 | 0.9 | 1.2 | |
| GUELPH | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.9 | 0.8 | 1.0 | 0.7 | 0.8 | 0.8 | 0.7 | 0.7 | 0.8 |
| HAMILTON | 7.7 | 6.9 | 6.4 | 7.5 | 7.7 | 7.8 | 6.4 | 7.0 | 5.5 | 4.8 | 4.6 | 4.5 | 4.3 | 6.2 |
| KINGSTON | 0.8 | 0.8 | 0.8 | 0.9 | 0.7 | 0.7 | 0.8 | 1.0 | 1.1 | 1.2 | 1.1 | 1.0 | 1.1 | 1.0 |
| KITCHENER | 1.4 | 1.1 | 1.2 | 1.1 | 1.0 | 1.1 | 1.4 | 1.5 | 1.6 | 1.4 | 1.5 | 1.3 | 1.5 | 1.3 |
| LONDON | 2.6 | 2.6 | 2.8 | 2.7 | 2.8 | 3.0 | 3.5 | 3.5 | 3.0 | 3.2 | 3.2 | 2.7 | 3.0 | 3.1 |
| NIAGARA FALLS | | | | | | | | | | | | | | |
| OSHAWA | 1.1 | 1.0 | 1.3 | 1.5 | 1.2 | 1.0 | 1.3 | 1.3 | 1.2 | 0.8 | 0.8 | 0.8 | 0.9 | 1.1 |
| OTTAWA | 4.3 | 5.0 | 4.8 | 3.7 | 3.7 | 3.6 | 3.6 | 4.2 | 4.8 | 5.1 | 4.6 | 5.1 | 5.2 | 4.3 |
| PETERBOROUGH | 0.2 | X | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 |
| ST. CATHARINES | 0.9 | 0.8 | 1.0 | 0.8 | 0.8 | 1.0 | 0.9 | 0.7 | 0.7 | 0.7 | 0.6 | 0.7 | 1.4 | 0.8 |
| SARNIA | 0.6 | 0.7 | 0.6 | 0.6 | 0.5 | 0.5 | 0.8 | 0.8 | 0.6 | 0.7 | 0.5 | 0.5 | 0.5 | 0.6 |
| SAULT STE. MARIE | 1.3 | 1.1 | 1.2 | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 0.6 | 0.6 | 0.4 | 0.4 | 0.4 | 0.7 |
| SUDBURY | 0.8 | 1.2 | 0.8 | 0.6 | 0.4 | 0.4 | 0.6 | 0.6 | 0.9 | 0.9 | 0.9 | 1.0 | 0.6 | 0.7 |
| THUNDER BAY | 1.6 | 1.5 | 1.2 | 0.9 | 0.8 | 0.8 | 0.9 | 0.9 | 0.8 | 0.6 | 0.4 | 0.5 | 0.7 | 0.8 |
| TORONTO | 53.9 | 51.5 | 52.6 | 56.1 | 57.4 | 55.1 | 55.8 | 54.3 | 55.9 | 52.6 | 55.3 | 54.4 | 54.8 | 54.8 |
| WINDSOR | 1.8 | 2.1 | 1.7 | 1.6 | 1.9 | 2.6 | 2.8 | 2.6 | 2.7 | 3.4 | 2.7 | 2.6 | 2.6 | 2.6 |
| OTHER ONTARIO | 19.8 | 22.6 | 22.0 | 19.6 | 17.6 | 17.8 | 16.7 | 17.2 | 17.8 | 21.1 | 20.9 | 21.8 | 19.8 | 20.5 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

N.A. - Not Available
SOURCE: Department of Manpower and Immigration

(iv) The relative distribution of immigrants among ethnic groups has also undergone some changes. For example, the share of European immigrants has declined from about 3/4 of the total to Ontario in 1962 to just under 1/2 of the total in 1972. At the same time, the proportion of immigrants from Asia and West Indies has grown from about 2 to 3% in 1962 to about 11 and 17% in 1972 respectively (Table 12). However, the shift was caused to a fair extent by a decline in the absolute number of immigrants from Europe (from a peak of about 90,000 in mid 1960's to about 30,000 recently) rather than due to large influx of non-European immigrants (Appendix D).

(v) In general, the spatial pattern of distribution exhibited by each of the ethnic groups appeared to be very similar. For example, measured by the proportion of intended immigrants, Toronto was ranked first and followed by Hamilton, Ottawa, London and Windsor etc. by nearly everyone of the ethnic groups (Figure 11). However, the actual percentage distribution in some of the centres differed substantially among a number of the ethnic groups. For example, only about 30% of the immigrants from U.S.A. and Netherlands were destined for the Toronto area, compared with over 70% for such groups as Greece, Malta, Israel and West Indies. (Figure 11) Furthermore a few of the groups tended to show greater affinity towards certain specific parts of

TABLE 12

PER CENT OF INTERNATIONAL IMMIGRATIONS TO ONTARIO BY MAJOR COUNTRIES
OF LAST PERMANENT RESIDENCE, 1962 - 1972

| <u>SOURCE AREA</u> | <u>1962</u> | <u>1963</u> | <u>1964</u> | <u>1965</u> | <u>1966</u> | <u>1967</u> | <u>1968</u> | <u>1969</u> | <u>1970</u> | <u>1971</u> | <u>1972</u> | <u>1962- 1972</u> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------|
| EUROPE | 76.7 | 79.2 | 80.1 | 80.3 | 81.9 | 77.0 | 71.1 | 59.7 | 55.7 | 47.2 | 47.6 | 69.3 |
| AFRICA | 1.2 | 1.4 | 1.7 | 1.1 | 1.3 | 1.4 | 1.7 | 1.5 | 1.7 | 2.3 | 5.5 | 1.8 |
| ASIA | 2.6 | 2.5 | 3.9 | 5.6 | 5.5 | 7.9 | 10.0 | 12.2 | 12.4 | 16.9 | 17.3 | 9.1 |
| AUSTRALIA | 1.6 | 1.4 | 1.5 | 1.3 | 1.4 | 1.9 | 1.9 | 2.2 | 2.4 | 2.1 | 1.6 | 1.8 |
| U.S.A. | 13.7 | 10.8 | 8.7 | 7.7 | 6.4 | 5.9 | 8.5 | 10.8 | 12.6 | 14.4 | 14.2 | 9.6 |
| WEST INDIES, CENTRAL AND SOUTH AMERICA | 4.1 | 4.6 | 4.1 | 4.0 | 3.5 | 5.9 | 6.8 | 13.5 | 15.1 | 17.0 | 13.7 | 8.3 |
| OTHERS | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

SOURCE: Department of Manpower and Immigration

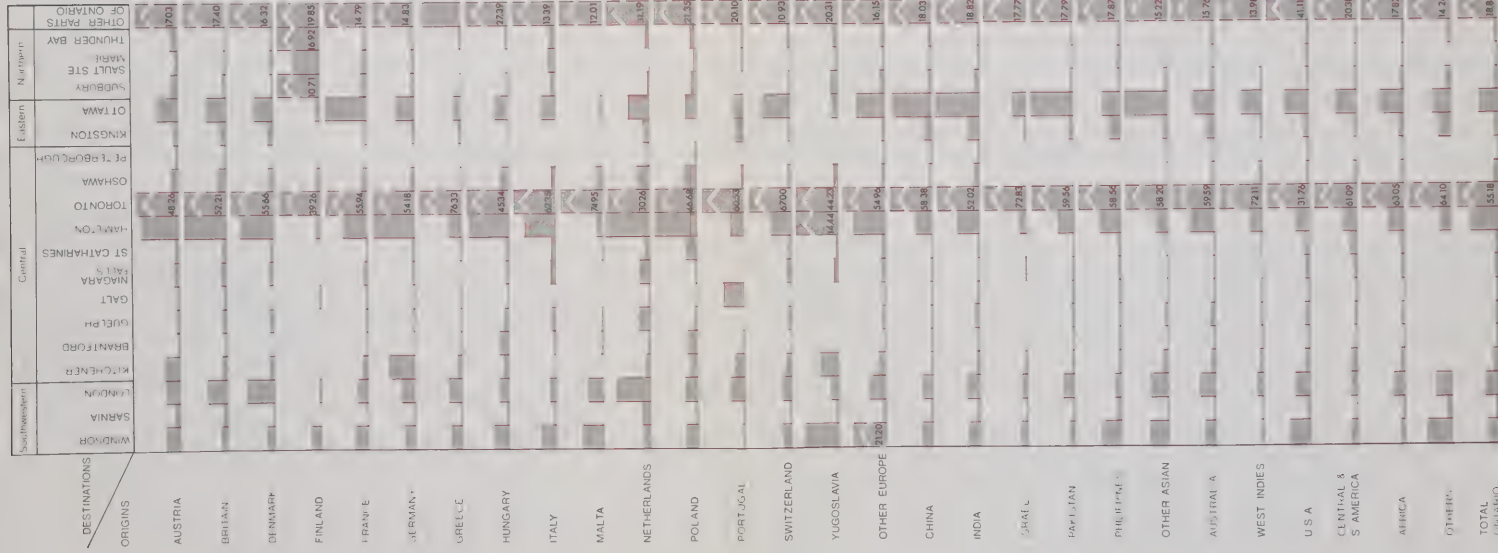


FIGURE 11

% DISTRIBUTION OF
IMMIGRANTS BY
ETHNIC ORIGINS TO
VARIOUS URBAN CENTRES,
ONTARIO, 1962 - 1972



Scale

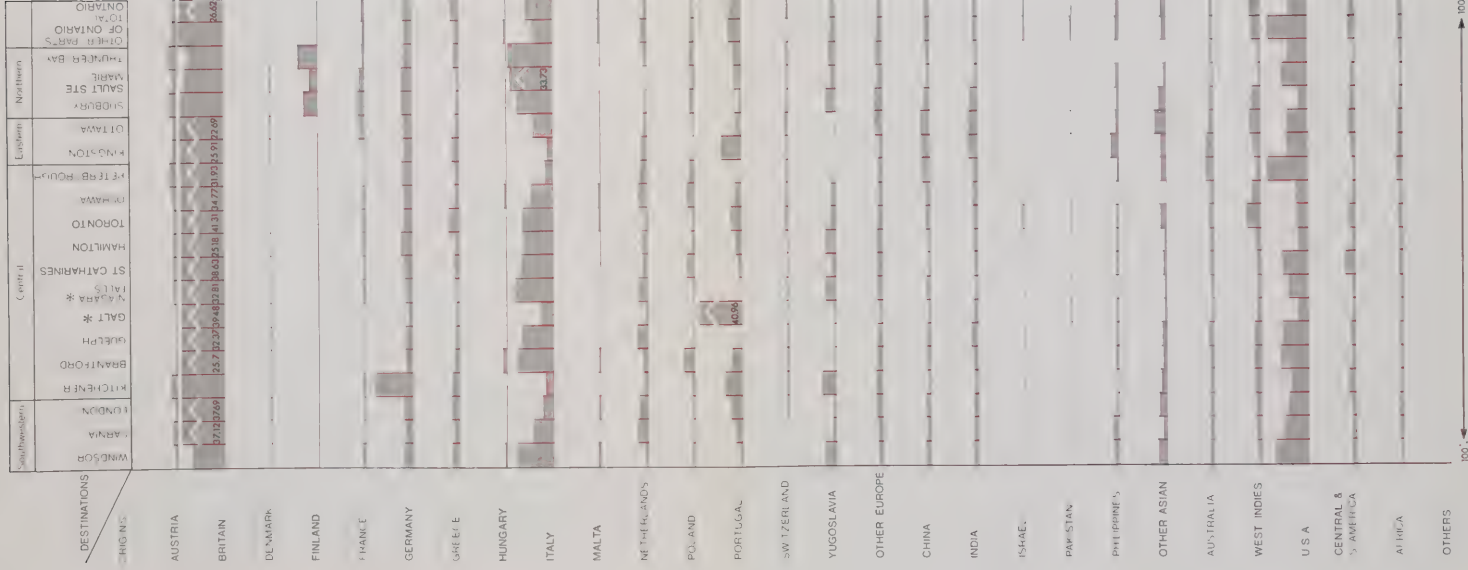


FIGURE 12
% COMPOSITION OF
ETHNIC ORIGINS
OF IMMIGRANTS FOR
EACH URBAN CENTRE,
ONTARIO, 1962-1972



* For each destination, the figure represent 1964-1972 period only

the province, such as Finnish towards northern Ontario, Portuguese towards the Galt/Cambridge area and Germans, Austrians and Yugoslavians towards the Kitchener/Waterloo area.

- (vi) Immigrants from Britain and Italy constituted the largest groups to Ontario. Together, they comprised about 40% of the total flow between 1962 - 1972 and followed by U.S.A., Portugal, West Indies and Germany which accounted for another 25%. However the ethnic composition received by each of the centres differed fairly markedly in a number of the centres. For example, immigrants from Portugal represented over 40% of the total immigrations to Galt compared with less than 1% to Guelph. (Figure 12) Also, close to 1/3 of the total immigration to Sault Ste. Marie and Thunder Bay was derived from Italy. Similarly the percentage composition of British immigrants destined for such centres as Oshawa and Niagara Falls was nearly double that of Windsor and Thunder Bay, for example.*

2. Interprovincial Movements Affecting Ontario

During the past thirty years, Ontario's net immigration gain from other provinces amounted to just slightly under half a million people. This represented about 13% of the total growth in Ontario, compared with about 31%

* Recent study by the Federal government indicated that the majority of the immigrants settled in areas which they gave as their intended destinations.

from international immigration. Much of the interprovincial migration was brought about by rapid mechanization in resource industries, together with a slackening in the demand for primary products (e.g. agriculture, fishing, etc.) both of which resulted in a surplus of labour in the Prairies and the Atlantic Provinces. Ontario has been the major recipient of this surplus labour. Even after allowing for some loss to British Columbia and recently to Alberta, we find that the rate of immigration from other provinces remains relatively stable averaging a gain of between 12,000 to 13,000 people annually (Tables 9 and 13).

During 1951 - 1956, out-migration from the four Atlantic Provinces was slightly above that from the two prairie provinces of Manitoba and Saskatchewan (Appendix E). Until 1966, the Atlantic Provinces increased their lead, though out-migration from both areas increased. Since then the position has reversed: out-migration from the two prairie provinces has increased to more than double that of the four Atlantic provinces (104,000 vis-a-vis 44,000). During the same period, for the first time since the early 1900's, Quebec lost about 40,000 people.

3. Intraprovincial Movements Affecting Ontario

Although intraprovincial migration does not contribute to the overall growth of Ontario, it affects the distribution of population within the province. To obtain

TABLE 13

NET INTERPROVINCIAL MIGRATION TO AND FROM ONTARIO,
1941 - 1961

| <u>PROVINCE</u> | <u>1941 - 1951</u> | <u>1951 - 1961</u> |
|----------------------|--------------------|--------------------|
| NEWFOUNDLAND | | 8,100 |
| PRINCE EDWARD ISLAND | 3,860 | 6,480 |
| NOVA SCOTIA | 22,600 | 28,540 |
| NEW BRUNSWICK | 18,500 | 20,550 |
| QUEBEC | 27,650 | 17,700 |
| MANITOBA | 28,100 | 17,500 |
| SASKATCHEWAN | 36,200 | 23,000 |
| ALBERTA | 7,250 | 2,930 |
| BRITISH COLUMBIA | -8,100 | -500 |
| YUKON AND N.W.T. | -900 | 100 |
| NET GAIN FOR ONTARIO | 135,160 | 124,400 |

SOURCE: Population Statistics, Ontario 1969

Department of Treasury and Economics 1969

some broad appreciation of the effect of intraprovincial migration on the metropolitan areas, we examined those counties (about half of the 53 in Ontario) which showed a net population loss through migration in the past thirty years. Between 1941 and 1971, net migration loss from these counties amounted to just over 150,000 people (Table 14). This figure includes some losses to other provinces and perhaps other counties, but even if we assumed that all these 150,000 people were concentrated in the Toronto/Hamilton urban complex, they would be equivalent to no more than 6 to 7% of the total population increase in these two metropolitan areas during the past 30 years.* Thus, contrary to the views of some, the urbanization pressure created by intraprovincial migration on such areas as Toronto, Hamilton, and Ottawa has been relatively insignificant in comparison with, say, the effect of international migration. However, those counties which lost people may see the issue differently. The loss of a few thousand people from some counties probably mainly in the younger age groups as in eastern or northern Ontario may represent further hardship in an already slow growth area (e.g., in the availability of labour or the quality of service).

4. Combined Effect of International, Interprovincial and Intraprovincial Movements

The foregoing discussions centred primarily on the impact of each of the three migration movements. To obtain a combined effect of these three migration

* As we shall see later, the 1966-1971 origin-destination migration data show that only a small portion of the people emigrating from eastern and northern Ontario in fact went to the Toronto/Hamilton area.

TABLE 14

COUNTIES WITH NET OUT-MIGRATION,
ONTARIO 1941 - 1971

| <u>COUNTIES</u> | <u>TOTAL NET MIGRATIONS 1941-1971</u> | <u>% OF TOTAL</u> |
|-------------------------|---|-------------------|
| <u>EASTERN ONTARIO</u> | | |
| DUNDAS | -4,100 | 2.6 |
| GLENGARRY | -6,900 | 4.5 |
| HASTINGS | -800 | 0.5 |
| LANARK | -500 | 0.3 |
| PRESCOTT | -10,100 | 6.6 |
| PRINCE EDWARD | -2,600 | 1.7 |
| RENFREW | -1,800 | 1.2 |
| RUSSEL | -5,000 | 3.2 |
| STORMONT | -4,800 | 3.1 |
| <u>CENTRAL ONTARIO</u> | | |
| HALIBURTON | -300 | 0.2 |
| <u>SOUTHERN ONTARIO</u> | | |
| BRUCE | -5,600 | 3.6 |
| GREY | -5,500 | 3.6 |
| HURON | -5,400 | 3.5 |
| KENT | -900 | 0.6 |
| PERTH | -2,500 | 1.6 |
| <u>NORTHERN ONTARIO</u> | | |
| COCHRANE | -40,000 | 25.8 |
| MANITOULIN | -4,600 | 3.0 |
| PARRY SOUND | -11,300 | 7.3 |
| TIMISKAMING | -29,300 | 19.0 |
| KENORA | -6,400 | 4.1 |
| RAINY RIVER | -6,200 | 4.0 |
| TOTAL | -154,600 | 100.0 |

All other Counties have net migration gains
(ie positive sign)

SOURCE: Statistics Canada

components especially on where they were being distributed geographically within the province, an examination was carried out at three geographical levels: the five provincial planning regions, the counties and the incorporated centres. For each area of interest, we noted what fraction of the provincial gain in population due to migration the area could account for,* and examined the ratio of net migration to natural increase. Together these two measures help reveal how migration has affected the pattern of development as well as give some idea of the growth dynamics of a particular locale. For example, an area receiving a large percentage of the net migration gain is generally one with substantial growth momentum and opportunities.

The following is a summary of the observations derived from the respective figures, table and appendixes.

Planning Regions (Figures 13, 14 and 15; Table 15)

- (i) The Central Ontario Planning Region received 4/5 of the province's net migration. Much of this gain was attributable to the six COLUC counties, which increased their share from just over half of the provincial total in 1941-1951 to over 2/3 in 1961-1971 (Figures 13, 14 and 15).**

* i.e. the combined effect of international, interprovincial, and intraprovincial components

** The six COLUC counties encompass the entire Toronto and Hamilton Census Metropolitan Areas (CMA).

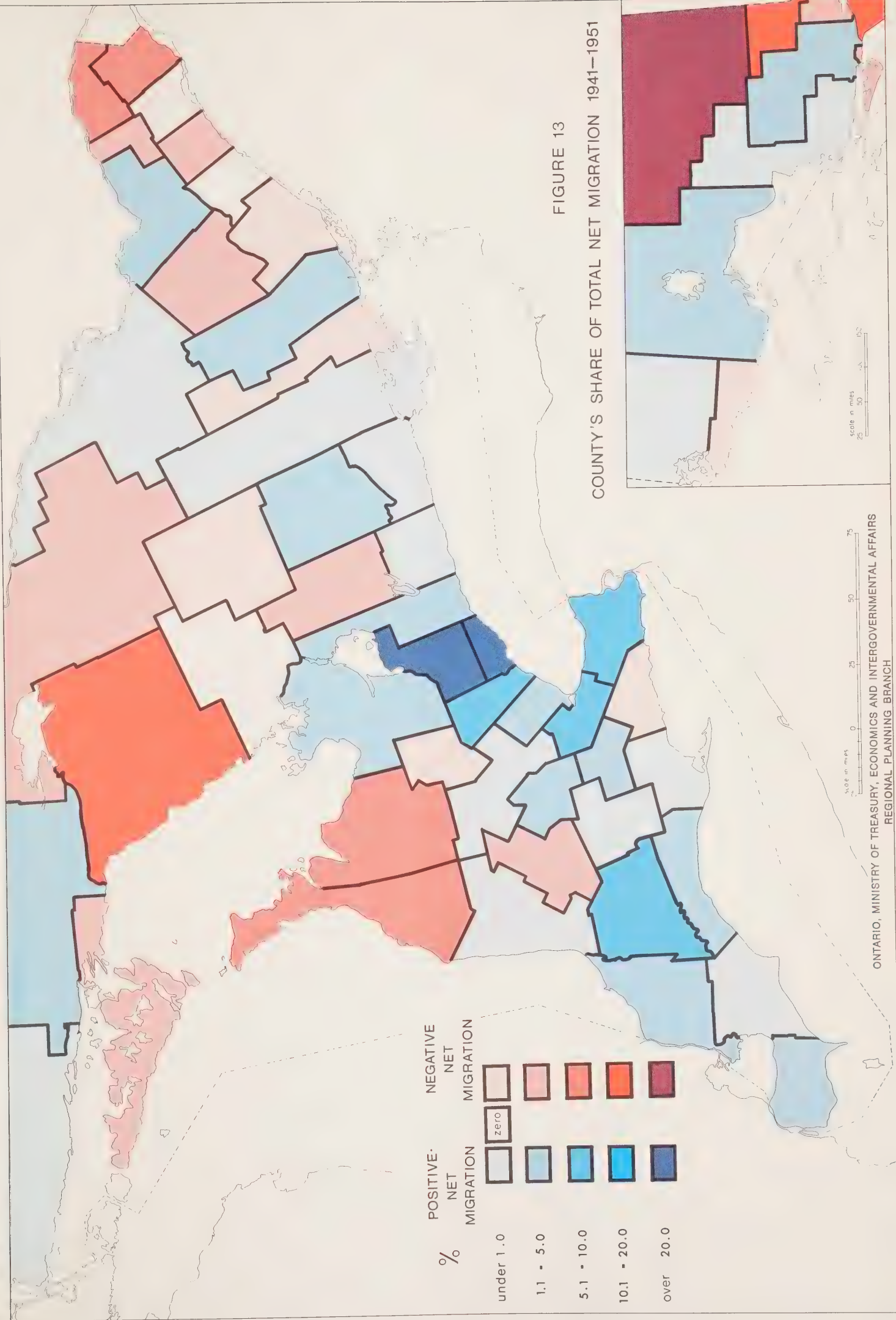


FIGURE 13
COUNTY'S SHARE OF TOTAL NET MIGRATION 1941-1951

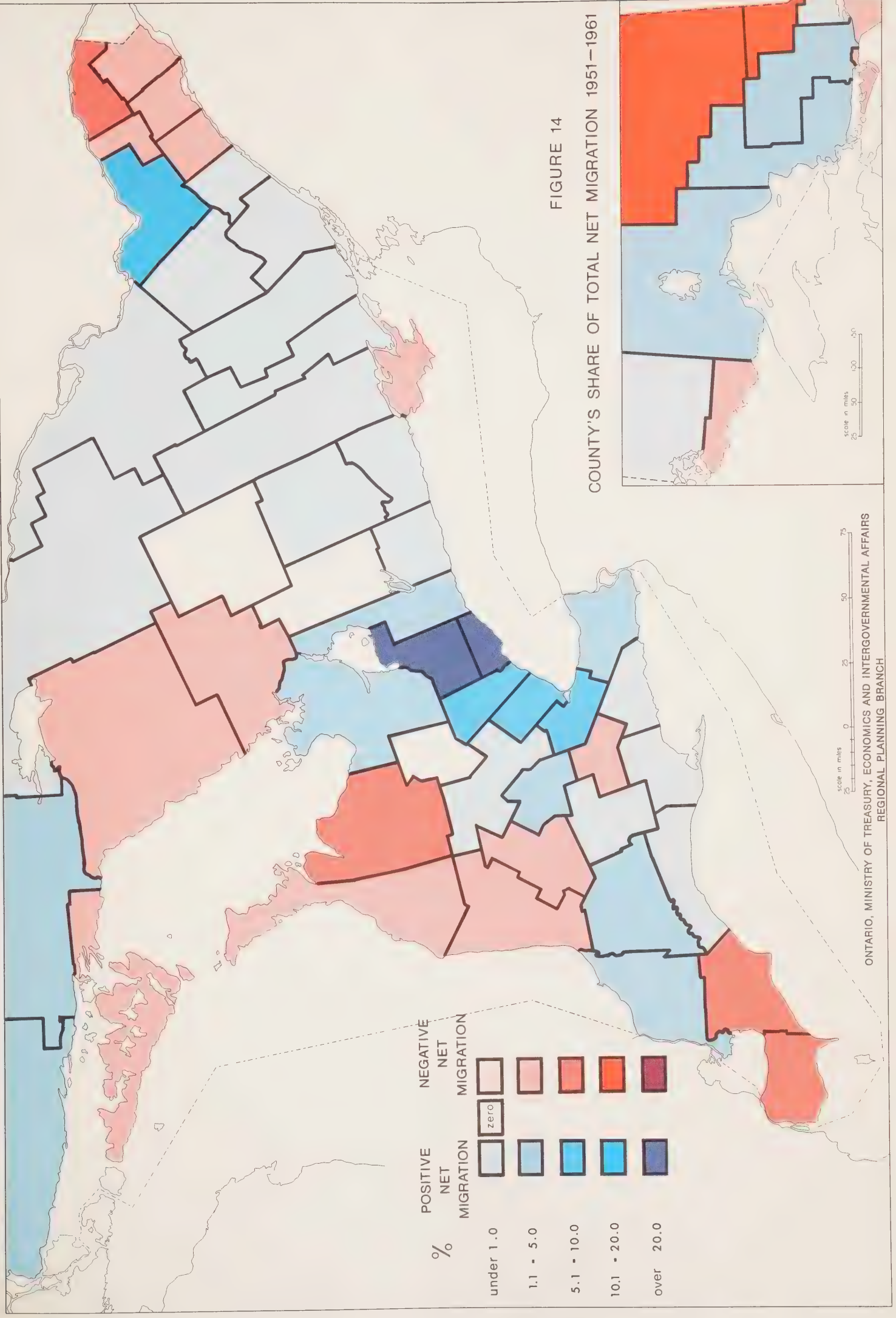


FIGURE 14

COUNTY'S SHARE OF TOTAL NET MIGRATION 1951-1961

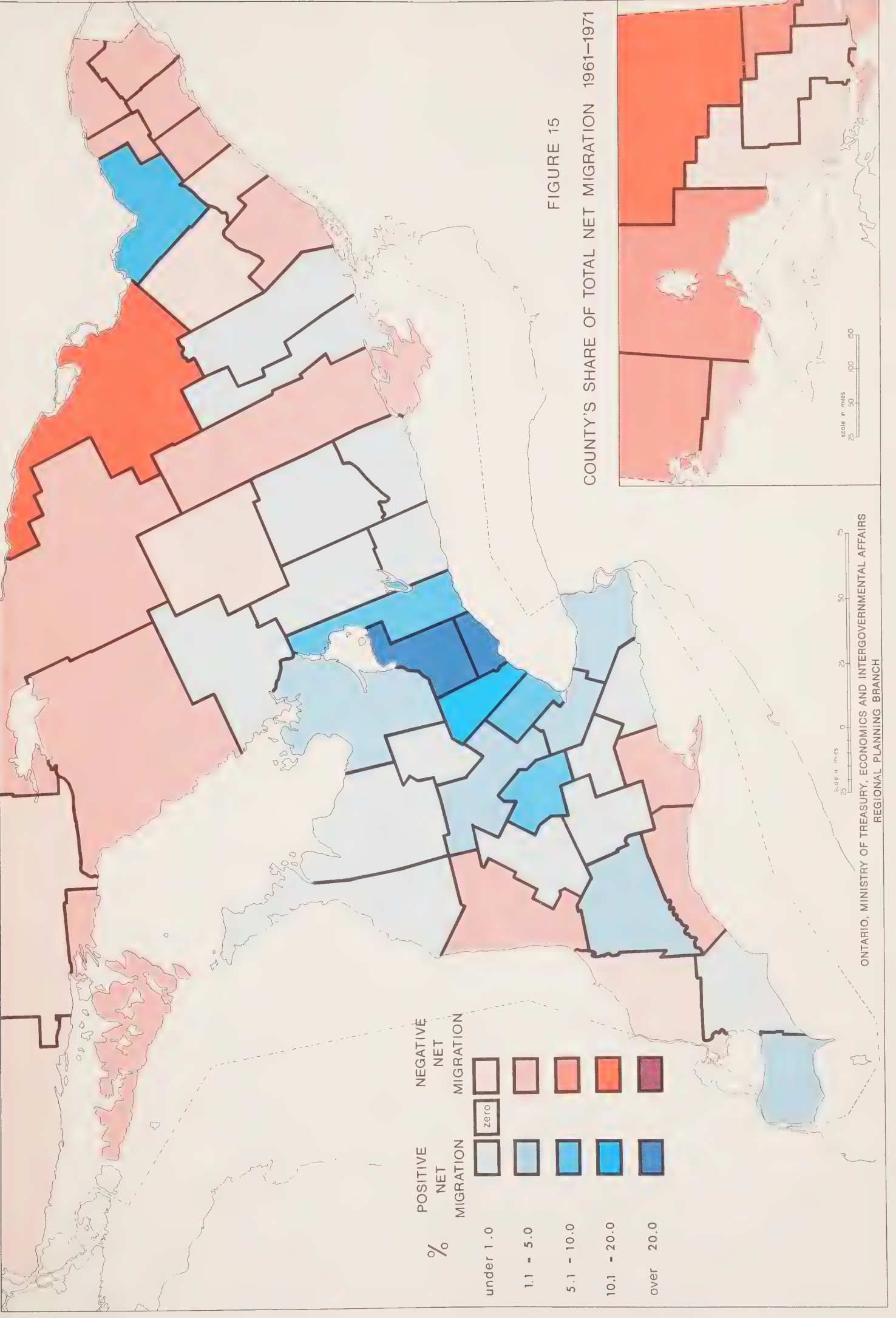


FIGURE 15
COUNTY'S SHARE OF TOTAL NET MIGRATION 1961-1971

| % | POSITIVE NET MIGRATION | | | | | NEGATIVE NET MIGRATION | | | | |
|---|------------------------|-----------|------------|-------------|-----------|------------------------|-----------|-----------|------------|-------------|
| | under 1.0 | 1.1 - 5.0 | 5.1 - 10.0 | 10.1 - 20.0 | over 20.0 | zero | under 1.0 | 1.1 - 5.0 | 5.1 - 10.0 | 10.1 - 20.0 |
| | | | | | | | | | | |

TABLE 15

PROPORTION OF POPULATION CHANGE DUE TO NATURAL INCREASE AND NET MIGRATION
BY PLANNING REGIONS AND MAJOR METROPOLITAN COUNTIES, ONTARIO
1941 - 1951, 1951 - 1961, 1961 - 1971 AND 1941 - 1971

| | 1941 - 1951 | | | | | | 1951 - 1961 | | | | | | 1961 - 1971 | | | | | | 1941 - 1971 | | | |
|---------------------|-------------------|------------------|---------------|------------------|---------------|------------------|-------------------|------------------|---------------|------------------|---------------|-----------|-------------------|---------------|------------------|---------------|-----|------------------|-------------------|------------------|---------------|-----|
| | % OF TOTAL CHANGE | | | | | | % OF TOTAL CHANGE | | | | | | % OF TOTAL CHANGE | | | | | | % OF TOTAL CHANGE | | | |
| | NO. | NATURAL INCREASE | NET MIGRATION | NATURAL INCREASE | NET MIGRATION | NATURAL INCREASE | NO. | NATURAL INCREASE | NET MIGRATION | NATURAL INCREASE | NET MIGRATION | NO. | NATURAL INCREASE | NET MIGRATION | NATURAL INCREASE | NET MIGRATION | NO. | NATURAL INCREASE | NET MIGRATION | NATURAL INCREASE | NET MIGRATION | NO. |
| PLANNING REGIONS | | | | | | | | | | | | | | | | | | | | | | |
| EASTERN | 87,700 | 96 | 4 | 141,200 | 75,400 | 65 | 35 | 115,300 | 34,800 | 77 | 23 | 344,200 | 113,400 | 75 | 25 | | | | | | | |
| CENTRAL | 234,100 | 46 | 54 | 508,300 | 554,600 | 48 | 52 | 511,600 | 590,600 | 47 | 54 | 1,254,000 | 1,416,600 | 47 | 53 | | | | | | | |
| SOUTHWESTERN | 87,300 | 64 | 36 | 148,600 | 22,400 | 87 | 13 | 114,600 | 45,000 | 72 | 28 | 350,500 | 115,900 | 75 | 25 | | | | | | | |
| NORTHEASTERN | 73,000 | 75 | -25 | 115,000 | 23,300 | 83 | 17 | 88,700 | -41,600 | 68 | -32 | 276,700 | -42,700 | 87 | -13 | | | | | | | |
| NORTHWESTERN | 23,400 | 80 | 20 | 40,500 | 9,300 | 81 | 19 | 30,700 | -22,900 | 59 | -41 | 94,600 | -7,900 | 92 | -8 | | | | | | | |
| ONTARIO | 505,500 | 62 | 38 | 953,600 | 685,000 | 58 | 42 | 860,900 | 605,900 | 59 | 41 | 2,320,000 | 1,595,300 | 59 | 41 | | | | | | | |
| COUNTIES | | | | | | | | | | | | | | | | | | | | | | |
| COLLUC (6 COUNTIES) | 144,700 | 41 | 59 | 354,900 | 481,800 | 42 | 58 | 386,200 | 475,100 | 45 | 55 | 885,800 | 1,162,500 | 43 | 57 | | | | | | | |
| WATERLOO | 14,600 | 53 | 47 | 27,500 | 23,200 | 54 | 46 | 32,300 | 45,000 | 42 | 58 | 74,400 | 81,000 | 48 | 52 | | | | | | | |
| OTTAWA/CARLETON | 30,800 | 77 | 23 | 52,300 | 59,800 | 47 | 53 | 53,000 | 60,500 | 47 | 53 | 136,100 | 129,400 | 51 | 49 | | | | | | | |
| MIDDLESEX | 14,200 | 41 | 59 | 30,900 | 28,400 | 52 | 48 | 29,300 | 31,300 | 48 | 52 | 74,400 | 80,500 | 48 | 52 | | | | | | | |

SOURCE: Statistics Canada

(ii) Net migration constituted over half of the total population increase in Central Ontario Region and other major metropolitan areas, but represents only one quarter of the total in the Southwestern and Eastern Ontario Regions (Table 15). During the past 30 years, both Northeastern and Northwestern Ontario Regions lost just over 10% of its natural increase. But these losses occurred mainly in the 1961-1971 period.

(iii) The migration distribution pattern for the Eastern and Southwestern Ontario Planning Regions fluctuated somewhat during the past three decades. Overall, the total net gain by each of the two regions was roughly the same (about 110,000; see Table 15). However, nearly all the migration gains in Eastern Ontario went to Ottawa-Carleton urban area.

Counties (Figures 16 and 17; Table 16)

(i) Of the 53 counties and districts in the province, nine showed a net migration loss in all of the three time periods (Table 16). The two areas with the largest losses were the Districts of Cochrane and Timiskaming. Together, they accounted for over 1/4 of the total net migration losses in the province.

TABLE 16

SUMMARY OF NET MIGRATION GAIN/LOSS BY GROUPS OF COUNTIES,
1941-1951, 1951-1961, and 1961-1971

| <u>COUNTIES WITH NET MIGRATION GAINS IN ALL THREE TIME PERIODS</u> | <u>COUNTIES WITH NET MIGRATION LOSSES IN ALL THREE TIME PERIODS</u> | <u>COUNTIES WHICH FLUCTUATE IN MIGRATION GAINS/ LOSSES DURING THE THREE TIME PERIODS</u> |
|--|--|---|
| <u>SOUTHWESTERN ONTARIO REGION</u> MIDDLESEX OXFORD <u>CENTRAL ONTARIO REGION</u> NIAGARA WENTWORTH WATERLOO RM WELLINGTON HALTON PEEL YORK RM + METRO SIMCOE ONTARIO DURHAM NORTHUMBERLAND PETERBOROUGH <u>EASTERN ONTARIO REGION</u> FRONTENAC OTTAWA/CARLETON | <u>EASTERN ONTARIO REGION</u> RUSSELL GLENGARRY PRESCOTT DUNDAS <u>NORTHEASTERN ONTARIO REGION</u> COCHRANE TIMISKAMING MANITOULIN PARRY SOUND <u>NORTHWESTERN ONTARIO REGION</u> RAINY RIVER | <u>SOUTHWESTERN ONTARIO REGION</u> ESSEX LAMBTON ELGIN PERTH HURON GREY BRUCE <u>CENTRAL ONTARIO REGION</u> NORFOLK HALDIMAND BRANT DUFFERIN VICTORIA MUSKOKA RM HALIBURTON <u>EASTERN ONTARIO REGION</u> PRINCE EDWARD HASTINGS LENNOX/ADDINGTON RENFREW LEEDS LANARK GRENVILLE STORMONT <u>NORTHEASTERN ONTARIO REGION</u> NIPISSING SUDBURY ALGOMA <u>NORTHWESTERN ONTARIO REGION</u> THUNDER BAY KENORA/PATRICIA |

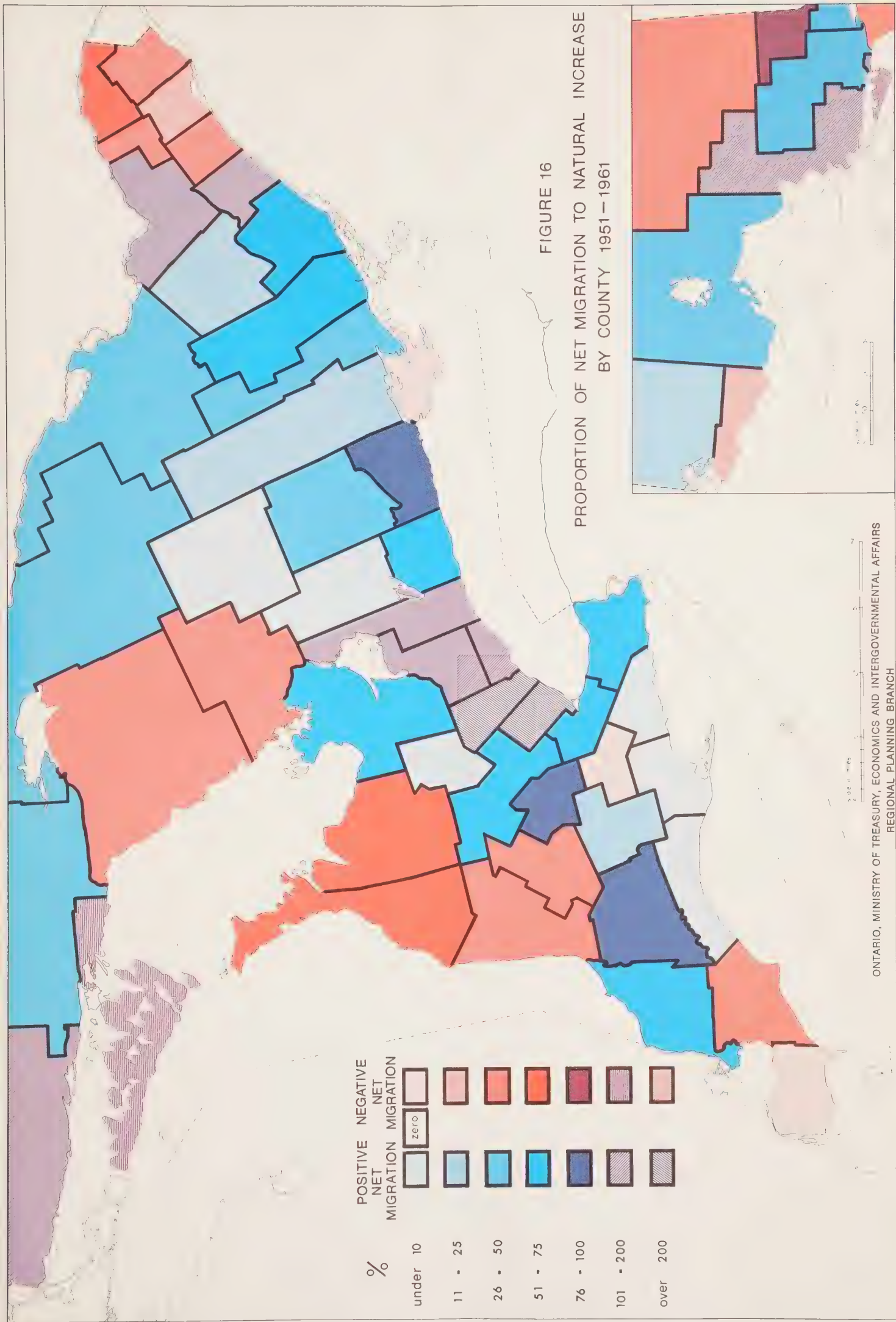
- (ii) The migration pattern among most of the counties fluctuated over the three time periods (Table 16).

For example, Essex County experienced a fairly substantial migration loss in 1951-1961, when a number of automobile production facilities in the locale were shut down. Subsequently, the pattern was reversed.

- (iii) Recently, not only has the number of counties with net migration loss increased, but also a more widespread pattern has emerged in the north and east.

During 1961-1971 every district in the North-eastern and Northwestern Regions showed a net loss through migration (Figure 15), as did every county east of Northumberland except Ottawa-Carleton, Frontenac, and Lennox/Addington. For a number of counties (Timiskaming, Rainy River, Prince Edward, etc.) migration loss exceeded natural increase, causing a decline in the absolute population of the area (Figure 16 and 17).

- (iv) Not all metropolitan counties showed an increasing trend to gain migrants. In the COLUC area, the total share of migration gain was attributable largely to Peel and to a smaller extent to Halton. In both Wentworth and Niagara, a definite downward trend was noted. In fact, during 1966-1971,



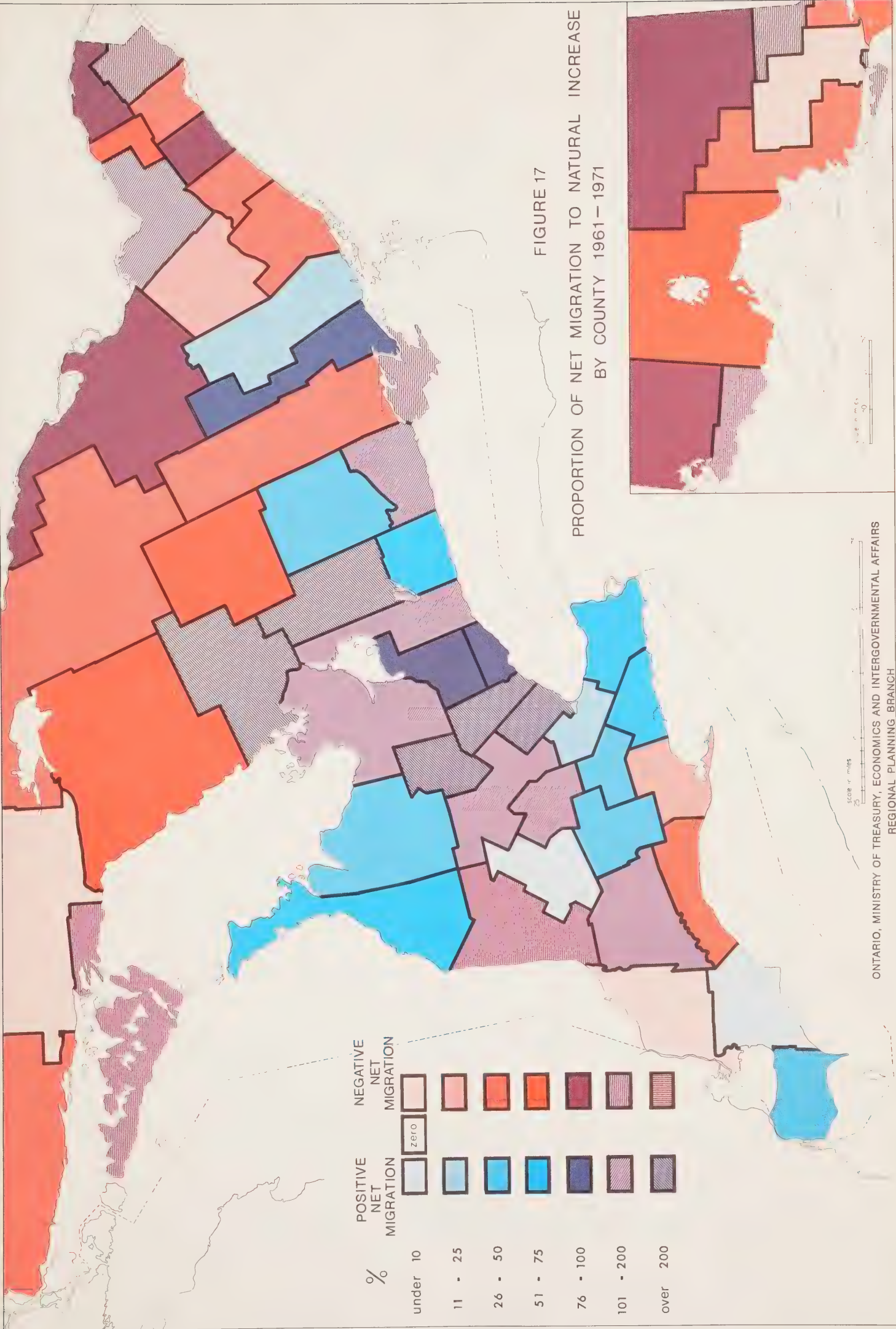


FIGURE 17

PROPORTION OF NET MIGRATION TO NATURAL INCREASE
BY COUNTY 1961-1971

SCALE IN MILES
0 10 20 30 40 50 60 70 80 90 100

Wentworth showed a slight loss in net migration. This is perhaps the main factor which accounts for the increasing declining shifts in Wentworth. Both Ottawa-Carleton and Waterloo increased their share of Ontario's migration.

- (v) For a number of counties, migration is becoming a far more important factor than natural increase in determining the growth of the area. In 1951-1961, the proportion of growth due to net migration exceeded that of natural increase only in the counties of Halton, Peel, York, Ottawa-Carleton and Grenville* (Figure 16). By 1961-1971, however, the number of these counties increased. In Peel, the proportion of growth contributed by net migration gain was equivalent to nearly four times that due to natural increase. In counties such as Dufferin, Muskoka, and Victoria, nearly all the growth in the past was due to natural increase. In 1961-1971, although their share of the provincial migration gain was comparatively small (less than 1%), their relative impact of net migration on the growth of the area was significant. During this period growth due to migration was between two and three times that due to natural increase.

* The substantial migration gain exhibited by Grenville during this period was due to influx of petrochemical industries to the area at that time.

Centres (Figures 18, 19, and 20; Tables 17 and 18;
Appendixes F and G)

- (i) The majority of the urban centres in Southern Ontario experienced a net gain in migration up to 1961, however, since, the picture has been reversing. First, the proportion of centres which experienced a net out-migration has increased, from about 1/4 of the total number of centres in 1941-1951 and 1951-1961 to nearly 2/5 in 1961-1971.*

Second and perhaps more significant, the centres tended to be concentrated in four broad geographical areas - the Niagara peninsula, the Kent/Lambton/Huron area, eastern Ontario (except Ottawa and centres in its immediate vicinity), and northern Ontario.

- (ii) There is no conclusive evidence to suggest any direct correlation between the size of centres and the effect of migration (Table 17 and Appendix F). One might expect there would be less probability of out-migration of population with increasing size of an urban place. In fact, large centres as well as small lost people through migration. The proportion of centres within the smaller size group which experienced a high proportion of its growth due to migration differed only marginally

* Only centres with population over 1,000 were included for analysis.

TABLE 17

NUMBER OF CENTRES BY PROPORTION OF THE POPULATION CHANGE
DUE TO NET MIGRATION AND SIZE OF CENTRE
1941-1951 1951-1961 and 1961-1971

| CENTRE SIZE | NUMBER OF CENTRES WHOSE PROPORTION OF NET MIGRATION WAS | | | | | |
|------------------|---|--|--|---|---|---|
| | OVER 3/4 OF THE TOTAL POPULATION DECLINE | BETWEEN 1/2 TO 3/4 OF THE TOTAL POPULATION DECLINE | BETWEEN 0 TO 1/2 OF THE TOTAL POPULATION DECLINE | BETWEEN 0 TO 1/2 OF THE TOTAL POPULATION GROWTH | BETWEEN 1/2 TO 3/4 OF THE TOTAL POPULATION GROWTH | OVER 3/4 OF THE TOTAL POPULATION GROWTH |
| 1941-1951 | | | | | | |
| 1,000 - 4,999 | 0 | 5 | 37 | 47 | 25 | 12 |
| 5,000 - 9,999 | 0 | 1 | 9 | 8 | 3 | 1 |
| 10,000 - 29,999 | 0 | 1 | 6 | 9 | 2 | 1 |
| 30,000 - 99,999 | 0 | 0 | 4 | 2 | 1 | 0 |
| 100,000 and Over | 0 | 0 | 0 | 3 | 1 | 0 |
| | | | | | | 126 22 19 7 4 |
| 1951-1961 | | | | | | |
| 1,000 - 4,999 | 0 | 3 | 33 | 51 | 25 | 10 |
| 5,000 - 9,999 | 0 | 0 | 6 | 13 | 4 | 2 |
| 10,000 - 29,999 | 0 | 0 | 3 | 5 | 10 | 1 |
| 30,000 - 99,999 | 0 | 0 | 1 | 6 | 4 | 2 |
| 100,000 and Over | 0 | 0 | 1 | 2 | 1 | 0 |
| | | | | | | 122 25 19 13 4 |
| 1961-1971 | | | | | | |
| 1,000 - 4,999 | 2 | 15 | 23 | 27 | 34 | 27 |
| 5,000 - 9,999 | 0 | 3 | 9 | 12 | 9 | 1 |
| 10,000 - 29,999 | 0 | 2 | 6 | 2 | 10 | 3 |
| 30,000 - 99,999 | 0 | 0 | 6 | 4 | 6 | 0 |
| 100,000 and Over | 0 | 0 | 1 | 3 | 1 | 0 |
| | | | | | | 128 34 23 16 5 |

from the migration experience of larger size centres. Indeed, a fair number of the smaller (pop. 1,000 - 4,999) centres had a relatively large influx of in-migrants (e.g. these centres with over 3/4 of its total population growth due to migration).

- (iii) Proximity to Highway 401 does not appear to have any noticeable effect on the proportion of a centre's growth due to net migration.* Centres adjacent to Highway 401 did not experience a greater percentage of their population growth due to net migration than those centres located farther away.
- (iv) However, (smaller) centres located close to large metropolitan areas experienced high rates of in-migrations (Table 18 and Appendix G). In general, it was observed that the closer a centre was to a metropolitan area, the more likely it was to show a gain in net migration, and to experience an increase in the proportion of its growth due to net migration. For example, during 1951-1961, about 1/2 of all the centres locating within 35 miles of metropolitan areas were found to have their proportion of population growth dominated by net migration (e.g. migration constituted over half of the population growth) compared with about 1/3 of all

* Highway 401 was completed in the early 1960's.

TABLE 18
NUMBER OF CENTRES BY PROPORTION OF THE POPULATION CHANGE
DUE TO NET MIGRATION AND PROXIMITY TO MAJOR METROPOLITAN AREA
SOUTHERN ONTARIO, 1941 - 1951, 1951 - 1961 and 1961 - 1971

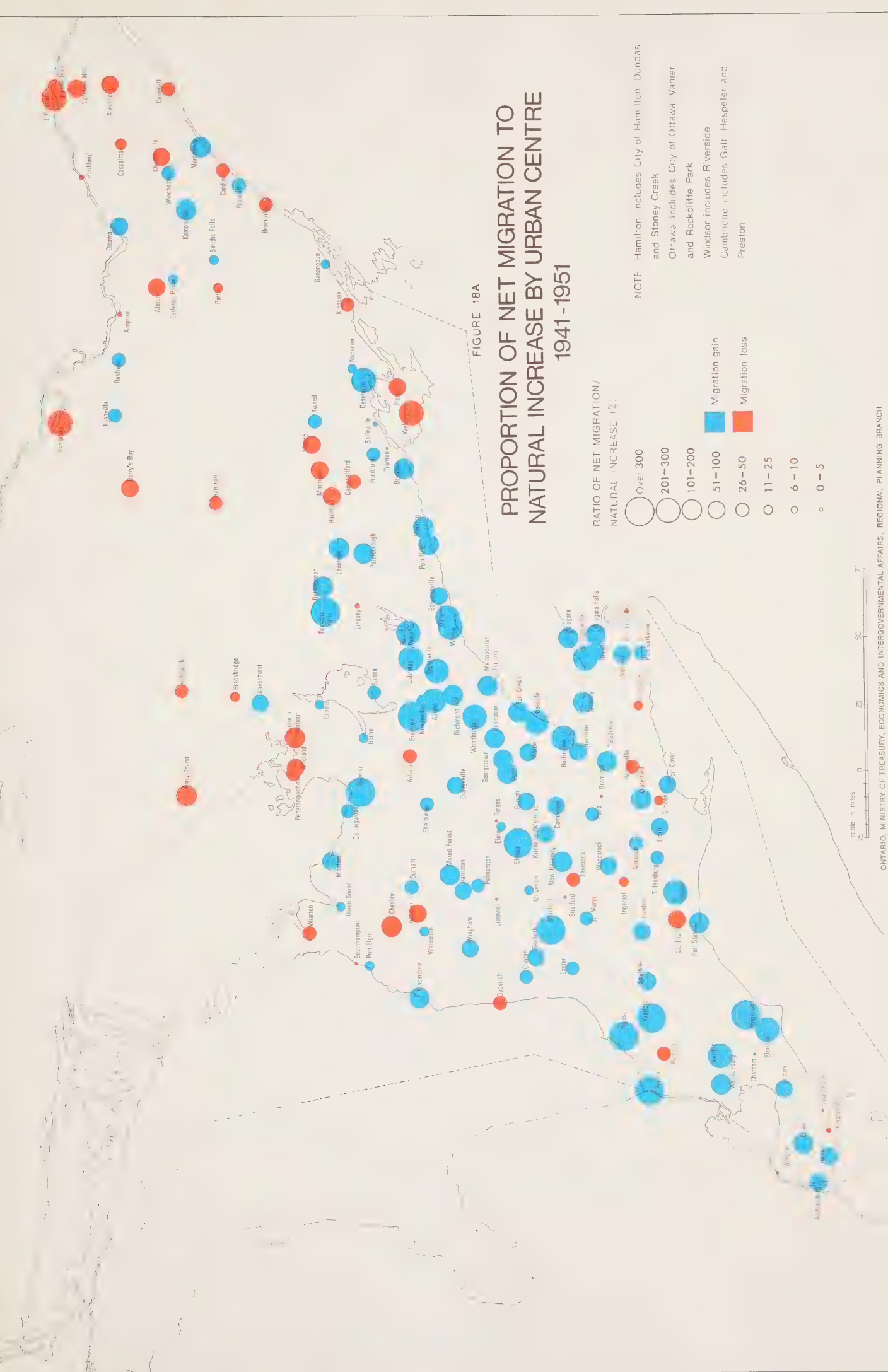
| DISTANCE TO THE NEAREST MAJOR METROPOLITAN AREA | NUMBER OF CENTRES WHOSE PROPORTION OF NET MIGRATION WAS | | | | | | TOTAL |
|--|---|--|--|---|---|---|-------|
| | OVER 3/4 OF THE TOTAL POPULATION DECLINE | BETWEEN 1/2 TO 3/4 OF THE TOTAL POPULATION DECLINE | BETWEEN 0 TO 1/2 OF THE TOTAL POPULATION DECLINE | BETWEEN 0 TO 1/2 OF THE TOTAL POPULATION GROWTH | BETWEEN 1/2 TO 3/4 OF THE TOTAL POPULATION GROWTH | OVER 3/4 OF THE TOTAL POPULATION GROWTH | |
| 1941-1951 | | | | | | | |
| Less than 15 | 0 | 0 | 1 | 1 | 3 | 2 | 7 |
| 15 to 24 | 0 | 0 | 5 | 6 | 5 | 1 | 17 |
| 25 to 34 | 0 | 0 | 8 | 13 | 6 | 3 | 30 |
| 35 to 54 | 0 | 1 | 11 | 17 | 9 | 4 | 42 |
| 55 to 75 | 0 | 0 | 5 | 6 | 6 | 3 | 20 |
| Over 75 | 0 | 3 | 12 | 13 | 3 | 0 | 31 |
| 1951-1961 | | | | | | | |
| Less than 15 | 0 | 0 | 0 | 3 | 3 | 1 | 7 |
| 15 to 24 | 0 | 1 | 3 | 5 | 3 | 5 | 17 |
| 25 to 34 | 1 | 0 | 6 | 15 | 10 | 3 | 35 |
| 35 to 54 | 0 | 1 | 7 | 19 | 16 | 1 | 44 |
| 55 to 75 | 0 | 1 | 4 | 10 | 3 | 1 | 19 |
| Over 75 | 1 | 0 | 12 | 12 | 6 | 4 | 35 |
| 1961-1971 | | | | | | | |
| Less than 15 | 0 | 0 | 0 | 3 | 3 | 2 | 8 |
| 15 to 24 | 0 | 0 | 2 | 7 | 11 | 3 | 23 |
| 25 to 34 | 0 | 0 | 3 | 13 | 13 | 5 | 34 |
| 35 to 54 | 1 | 7 | 12 | 10 | 15 | 6 | 51 |
| 55 to 75 | 0 | 3 | 5 | 2 | 5 | 7 | 22 |
| Over 75 | 1 | 5 | 12 | 5 | 10 | 9 | 42 |

the centres located beyond this distance. Also, during 1961-1971, less than 10% of all the centres locating within a 35 miles radius of metropolitan areas displayed a loss in migration compared with about 40% of the centres located farther away.

It was suggested that this growth effect which was influenced by the size of larger cities and diminished by distance, was not necessarily over-spill in the literal sense of population flowing out of an over-full container (Windsor had out-migration in 1951-1961 and Hamilton had extremely modest in-migration in 1961-1971).^{*} The stimulation of population growth of the surrounding centres was caused largely by economic development operating through inter-industry linkages. For example, growth in the large city may increase demand for an industry which may have located in nearby small towns in order to secure the environment it needs and to avoid paying for big-city features it does not require.

- (v) Within an arc of about seventy miles north and northwest of Toronto, nearly all the urban centres have displayed a gain in migration during the past three decades. More importantly in many of the centres, the proportion of growth due to migration has increased fairly substantially from 1941 to 1971 (from a 1:1 net migration/natural increase ratio to 3:1).

* Rodd, S., "Small-Area Migration Experience in Southern Ontario, 1951-1961", a Paper Prepared for Conference on Implications of Demographic Factors for Education Planning and Research, Ontario Institute for Studies in Education, Toronto, 1969.



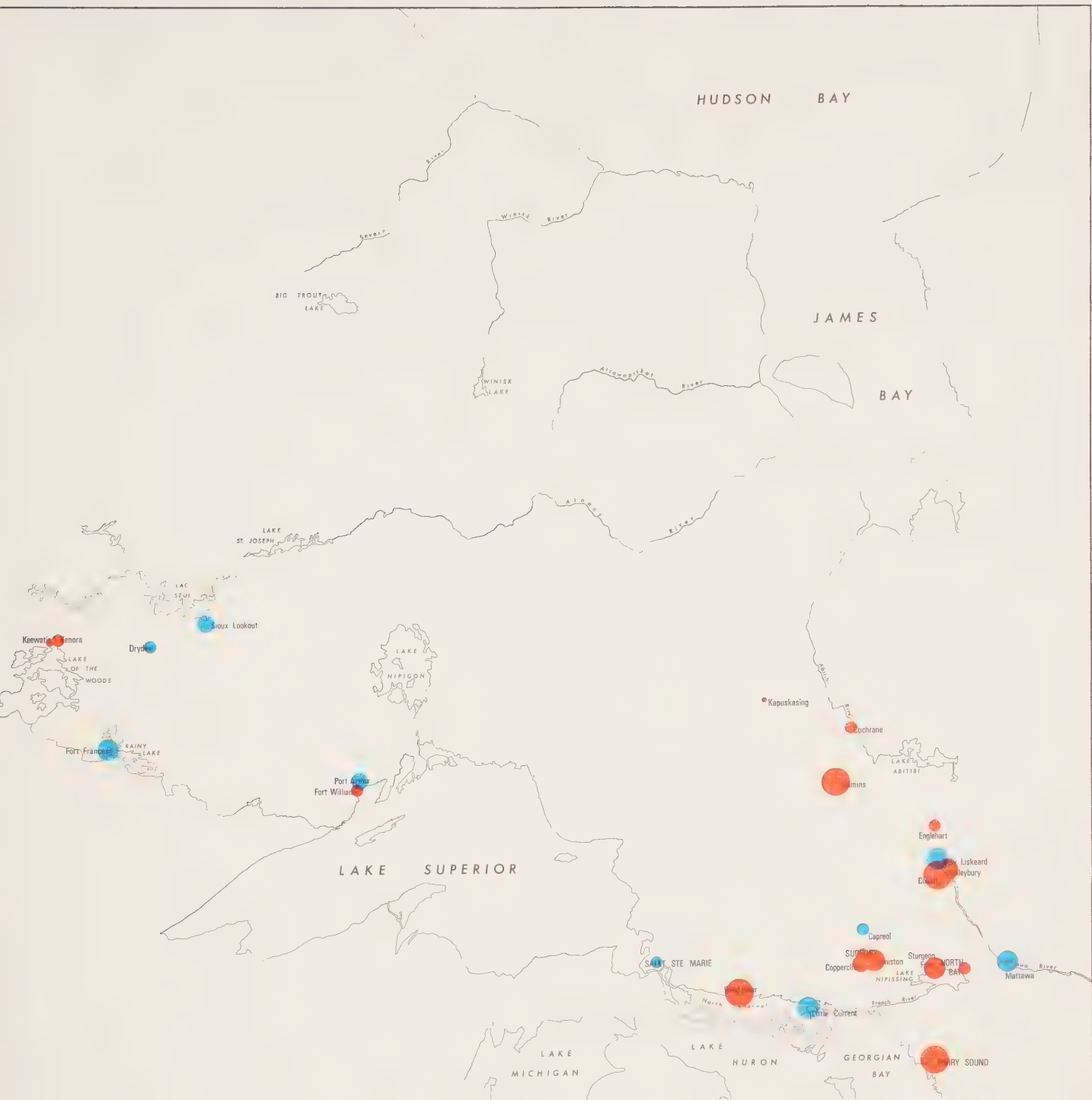


FIGURE 18B

PROPORTION OF NET MIGRATION TO NATURAL INCREASE BY URBAN CENTRE 1941-1951



RATIO OF NET MIGRATION/
NATURAL INCREASE (%)

- 101-200
- 51-100
- 26-50
- 11-25
- 6-10
- 0-5

■ Migration gain
■ Migration loss

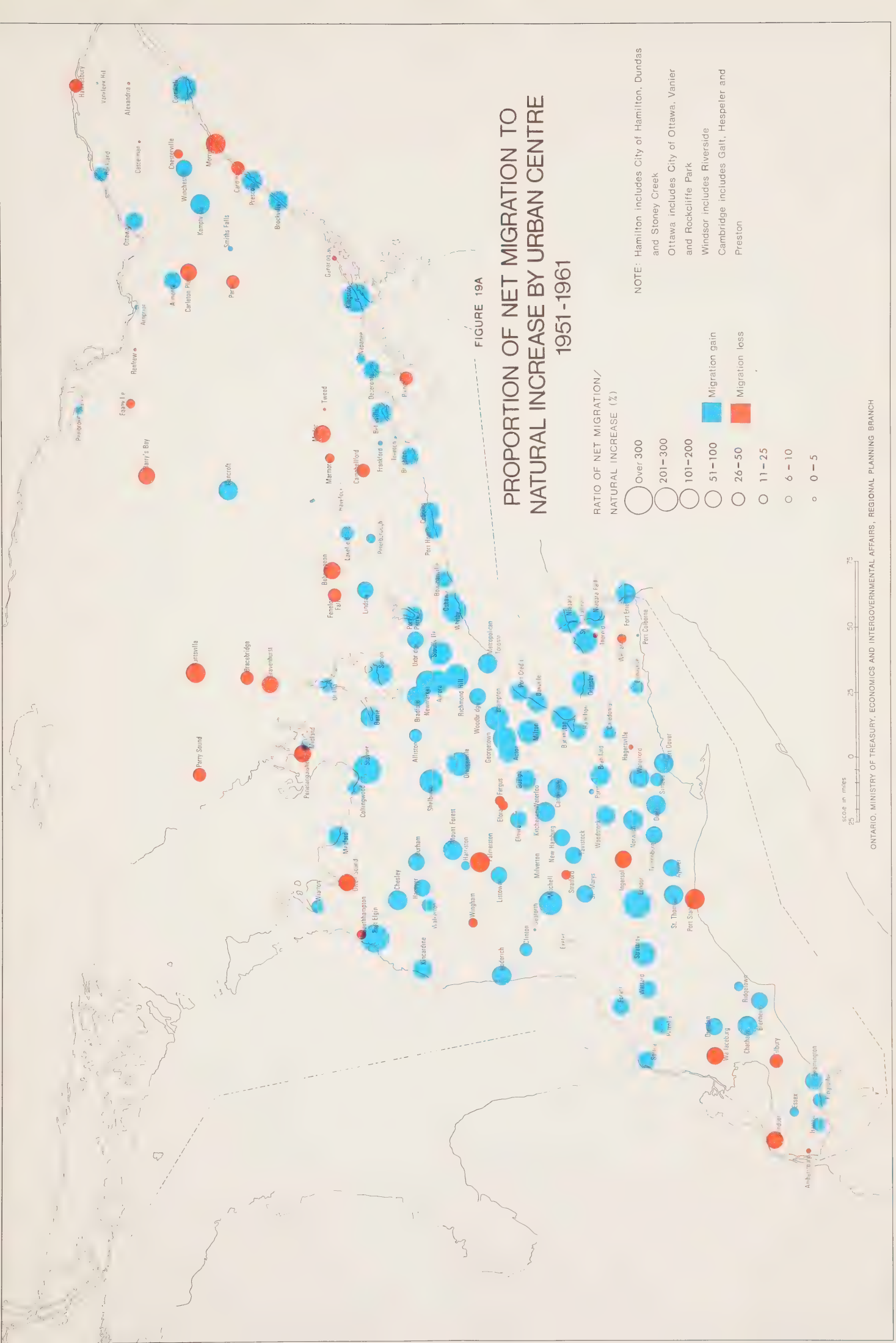


FIGURE 19A

PROPORTION OF NET MIGRATION TO NATURAL INCREASE BY URBAN CENTRE 1951-1961

RATIO OF NET MIGRATION/
NATURAL INCREASE (%)

- Over 300
- 201-300
- 101-200
- 51-100
- 26-50
- 11-25
- 6-10
- 0-5

Migration gain
Migration loss

NOTE: Hamilton includes City of Hamilton, Dundas and Stoney Creek
Ottawa includes City of Ottawa, Vanier and Rockcliffe Park
Windsor includes Riverside
Cambridge includes Galt, Hespeler and Preston

SCALE IN MILES
0 25 50 75

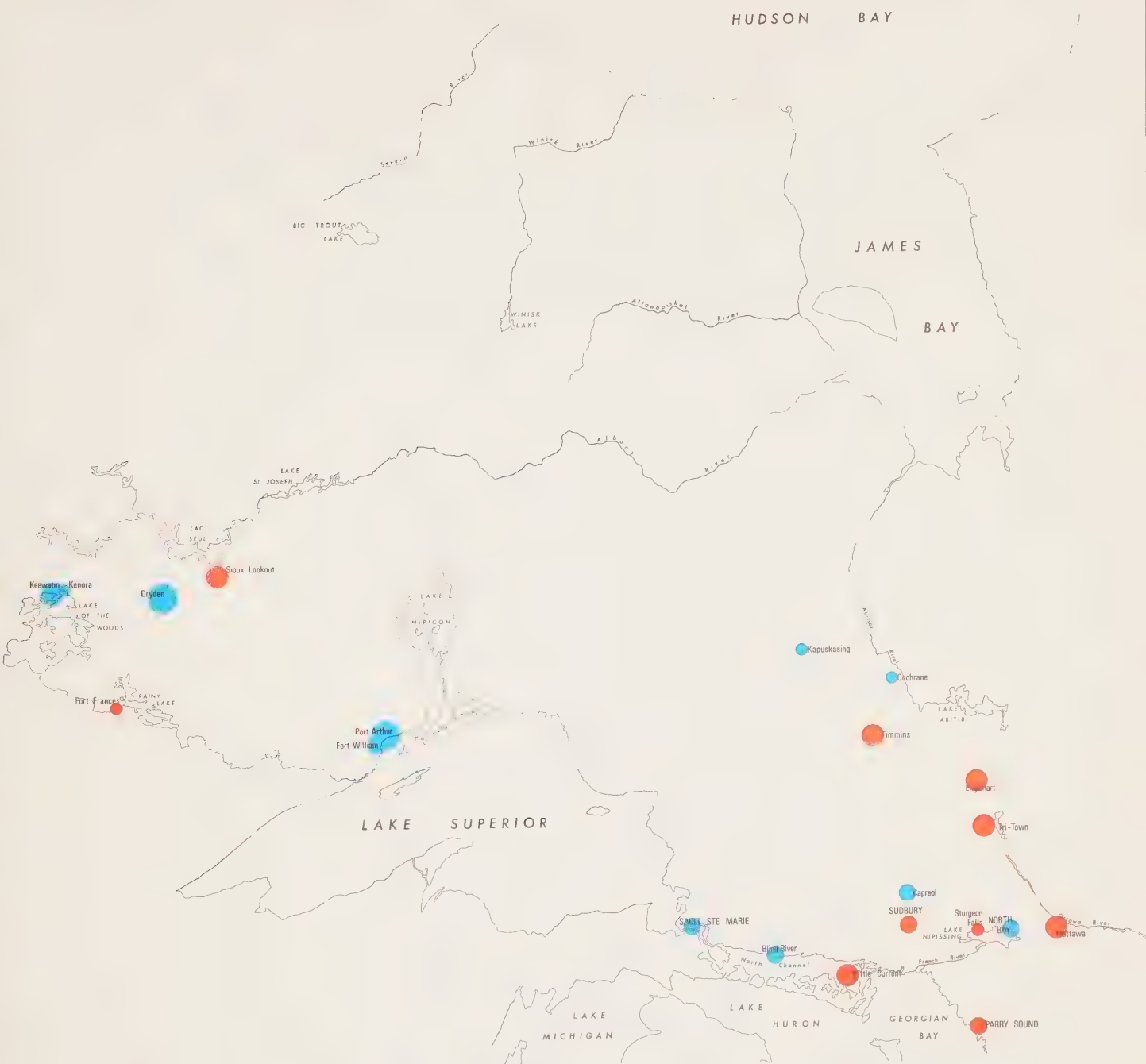


FIGURE 19B

PROPORTION OF NET MIGRATION TO NATURAL INCREASE BY URBAN CENTRE 1951-1961

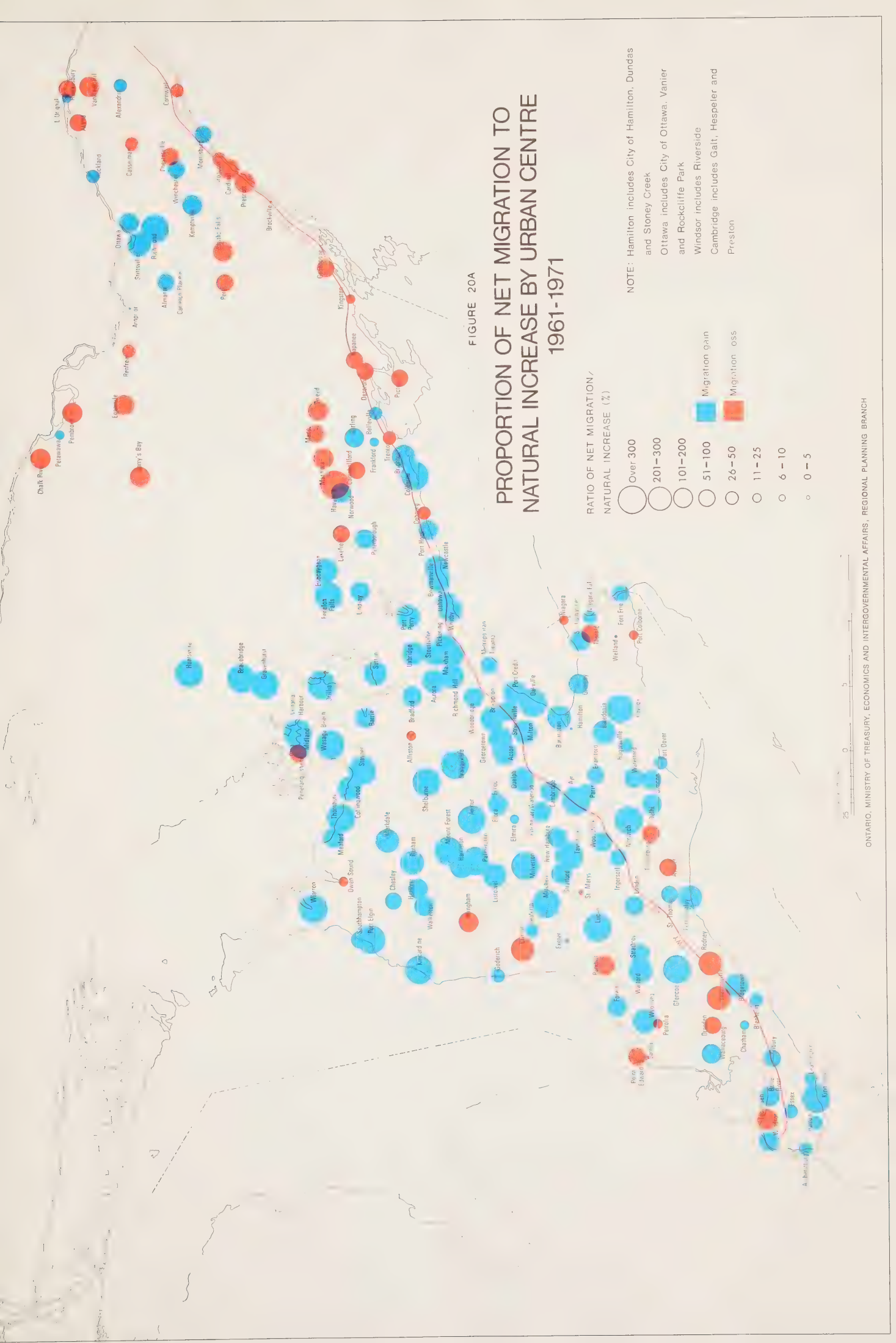
Scale in miles
20 10 0 20 40 60 80 100 120 140 160

RATIO OF NET MIGRATION/
NATURAL INCREASE (%)

- 101-200
- 51-100
- 26-50
- 11-25
- 6-10
- 0-5

■ Migration gain
■ Migration loss

NOTE: Sudbury includes City of Sudbury, Coniston and Copper Cliff
Tri-Town includes Cobalt, Haileybury and New Liskeard



5. Migration Streams

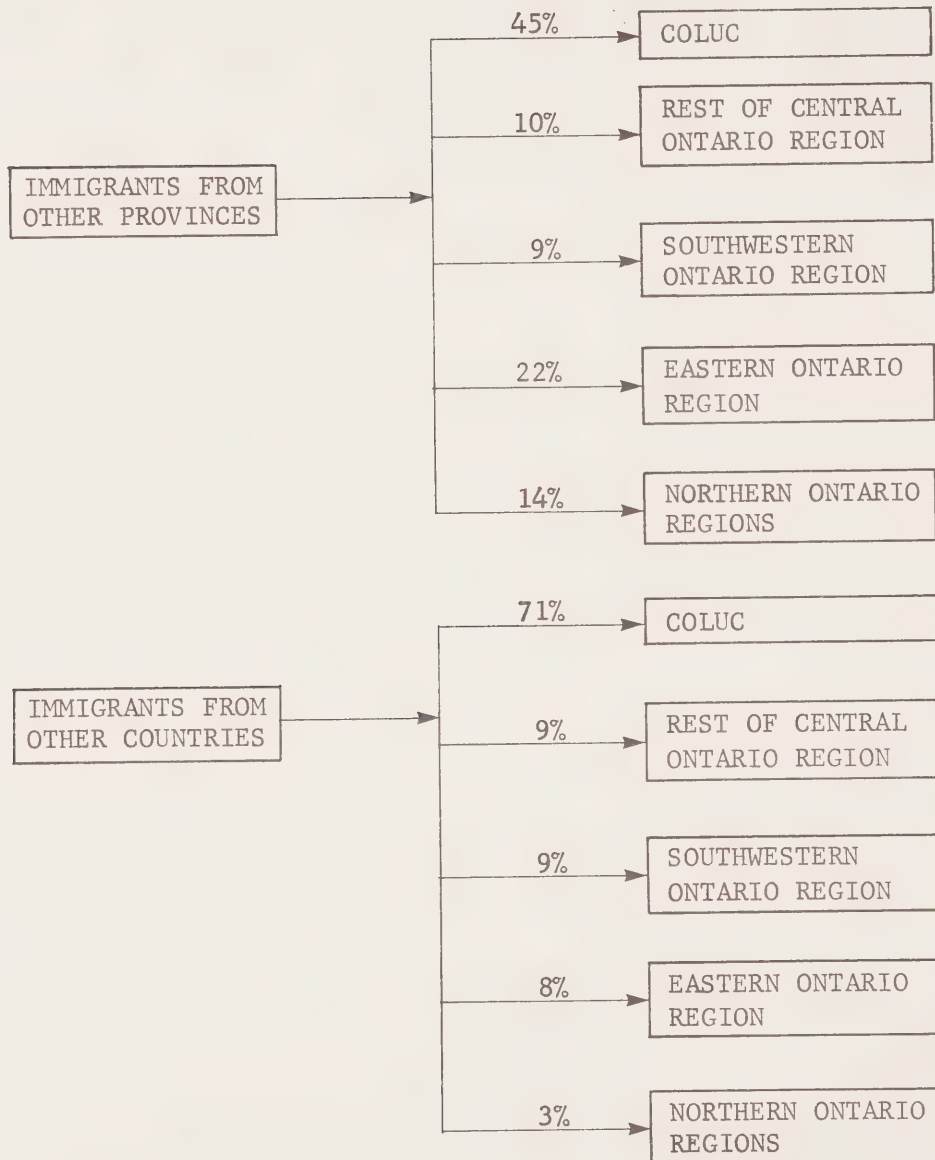
The foregoing discussions showed only the net gain or loss of migrants within an area. In many instances it is not just the number of migrants which one has to be concerned with. A knowledge on the origin and destination of the migrants is also essential to the understanding of the inter-regional relationships. How did migration from eastern Ontario affect other parts of the province? Where did the rural non-farm migrants come from? To provide a perspective on some of these questions, an examination was carried out on the 1966-1971 Taxation Revenue data, the 1956-1961 unpublished Census of Canada Special Survey and a number of other studies.* The following observations were deduced primarily from a synthesis of this information.

- (i) Immigration from other provinces tended to be far less concentrated in the Toronto/Hamilton area than was international immigration. Between 1966 and 1971, the COLUC area (i.e. the Toronto/Hamilton urban complex) received close to 3/4 of Ontario's total foreign immigrants, but only about 1/2 of the net immigrants from other provinces (Table 19). The Eastern and Northern Ontario Regions, however, received a larger fraction of Ontario's interprovincial immigrants than of

* The information collected by the Taxation and Revenue Department referred to the number of taxpayers only. The data was then adjusted to reflect the total population movement based on the 1971 Census. For this reason, there is certain degree of error in the information. While the methodology of estimating is the responsibility of Statistics Canada, the responsibility of interpretation rests with the Ontario Ministry of Treasury, Economics and Intergovernmental Affairs.

TABLE 19

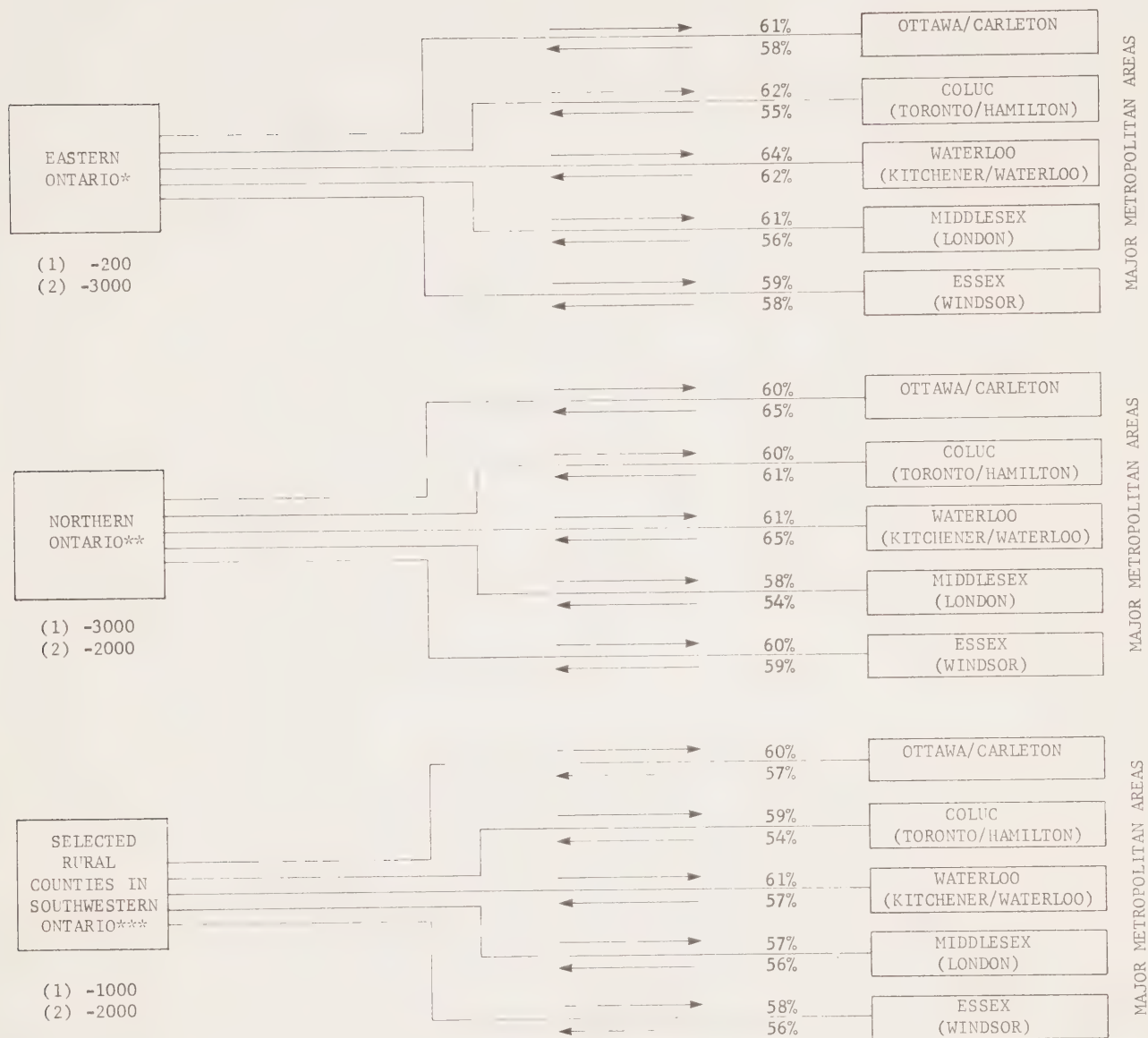
COMPARISON OF DISTRIBUTION
PATTERN: INTERNATIONAL VIS-A-VIS
INTERPROVINCIAL MIGRATION, 1966-1971



SOURCE: Based on Revenue Canada Data.

FIGURE 21

PER CENT OF MIGRANTS IN THE 16 TO 44 AGE GROUP BETWEEN
EASTERN ONTARIO, NORTHERN ONTARIO AND SELECTED RURAL COUNTIES IN SOUTHWESTERN
ONTARIO AND MAJOR METROPOLITAN AREAS, ONTARIO, 1966-1971



* Refers to the entire Eastern Ontario Planning Region minus the Ottawa/Carleton area.

** Refers to the combined Northeastern and Northwestern Planning Regions.

*** Refers to the Counties of Huron, Perth, Oxford, Lambton, Kent and Elgin.

- (1) Total gain/loss (+/-) for Region, All Age Groups
(2) Total gain/loss (+/-) for Region, 16-44 Age Group

+ represents a gain from the Metropolitan Areas to the Region.
- represents a loss from the Region to the Metropolitan Areas.

% Refers to the 16-44 Age Group as a per cent of the Total Migrant Population.

its international immigrants, largely because of the influx of migrants from Quebec and the Atlantic provinces. Migrants from the prairie provinces tended to favour the Toronto/Hamilton area.

(ii) Eastern Ontario, northern Ontario and a number of rural counties in southwestern Ontario, all experienced a loss during migration exchange with the major metropolitan areas (Figure 21).* The process of age selectivity among migrants appeared to be most pronounced in eastern Ontario where the bulk of the migration loss was in the 16 to 44 age group population and to a lesser extent in the rural parts of Southwestern Ontario.

(iii) However, Alberta and British Columbia, not the major metropolitan centres in Ontario, gained most of the emigrants from the eastern and northern parts of Ontario. Between 1966 and 1971, the provinces of Alberta and British Columbia received about half of the total net emigrants from eastern and northern Ontario. This number exceeds the combined total shares of the six metropolitan centres: Toronto, Hamilton, Ottawa, London, Kitchener/Waterloo, and Windsor (Table 20). Surprisingly,

* Eastern Ontario refers to the entire Eastern Ontario Planning Region minus the Ottawa/Carleton area.

TABLE 20

GEOGRAPHICAL DISTRIBUTIONS OF DESTINATIONS OF NET MIGRANTS
FROM EASTERN AND NORTHERN ONTARIO, AND SELECTED COUNTIES
IN SOUTHWESTERN ONTARIO, 1966-1971

| <div>TO</div> <div>FROM</div> | ALBERTA AND BRITISH COLUMBIA | OTHER PROVINCES | METROPOLITAN COUNTIES | | | | | REST OF ONTARIO | TOTAL |
|---|---------------------------------------|--------------------|--------------------------------|--------------------|-----------------------|-------------------------------------|--------------------|--------------------|-------|
| | | | COLUC (TORONTO HAMILTON) | OTTAWA CARLETON | MIDDLESEX (LONDON) | WATERLOO (KITCHENER WATERLOO) | ESSEX (WINDSOR) | | |
| (1) EASTERN ONTARIO | 47% | | | 1% | 5% | 12% | 2% | 33% | 100% |
| (2) NORTHERN ONTARIO | 52% | 6% | 8% | 8% | | 3% | 3% | 20% | 100% |
| RURAL COUNTIES ⁽³⁾ IN SOUTHWESTERN ONTARIO | 29% | | | 3% | 35% | 7% | | 26% | 100% |

(1) The entire Eastern Ontario Planning Region minus the Ottawa/Carleton Area.
(2) The combined Northeastern and Northwestern Ontario Planning Regions.
(3) The counties of Huron, Perth, Oxford, Lambton, Kent and Elgin.

NOTE: Blank spaces are areas which showed a migration loss to Eastern Ontario, Northern Ontario or rural counties in Southwestern Ontario i.e., their net gain from one of these is negative.

SOURCE: For volume of flow, see Appendix H.

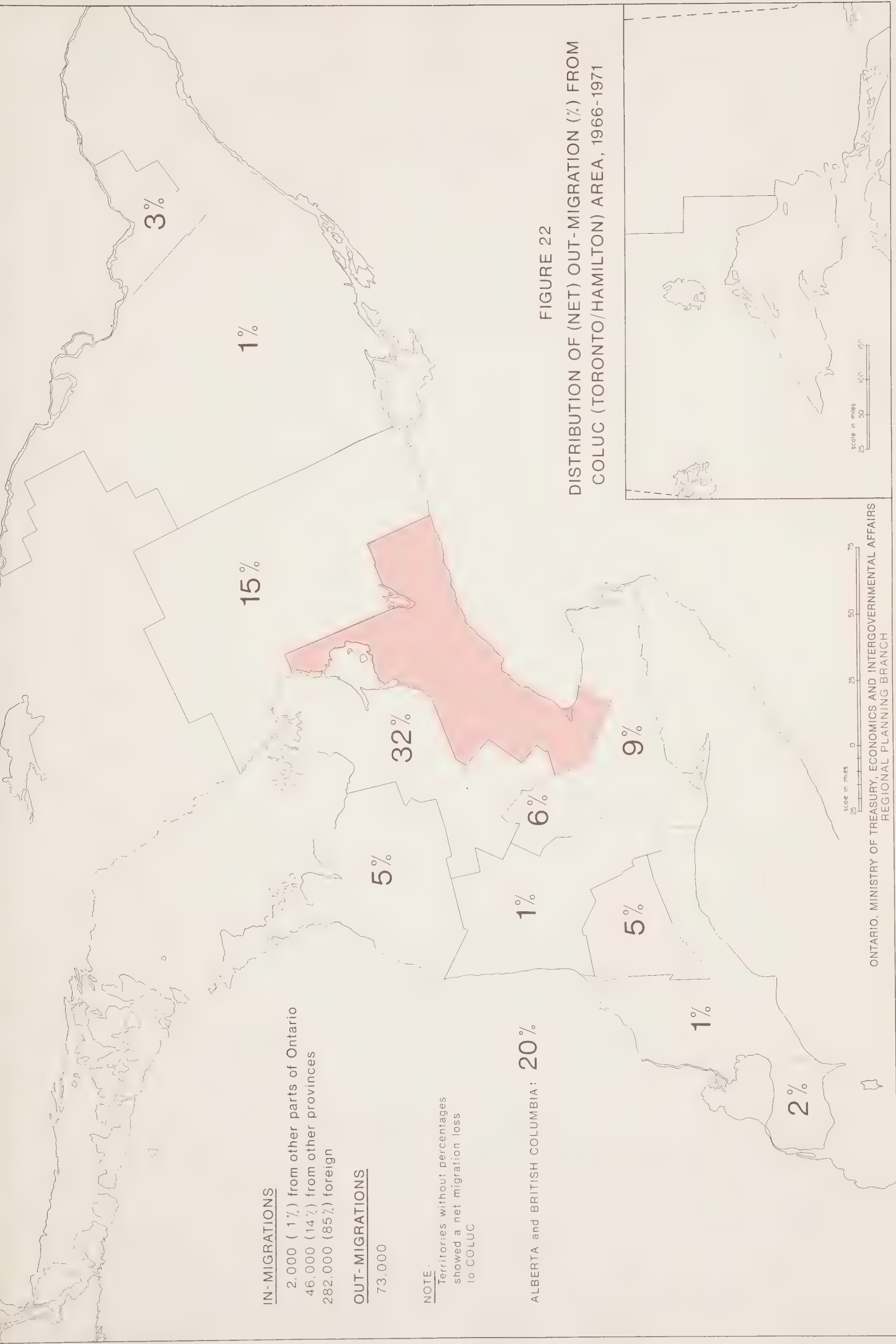
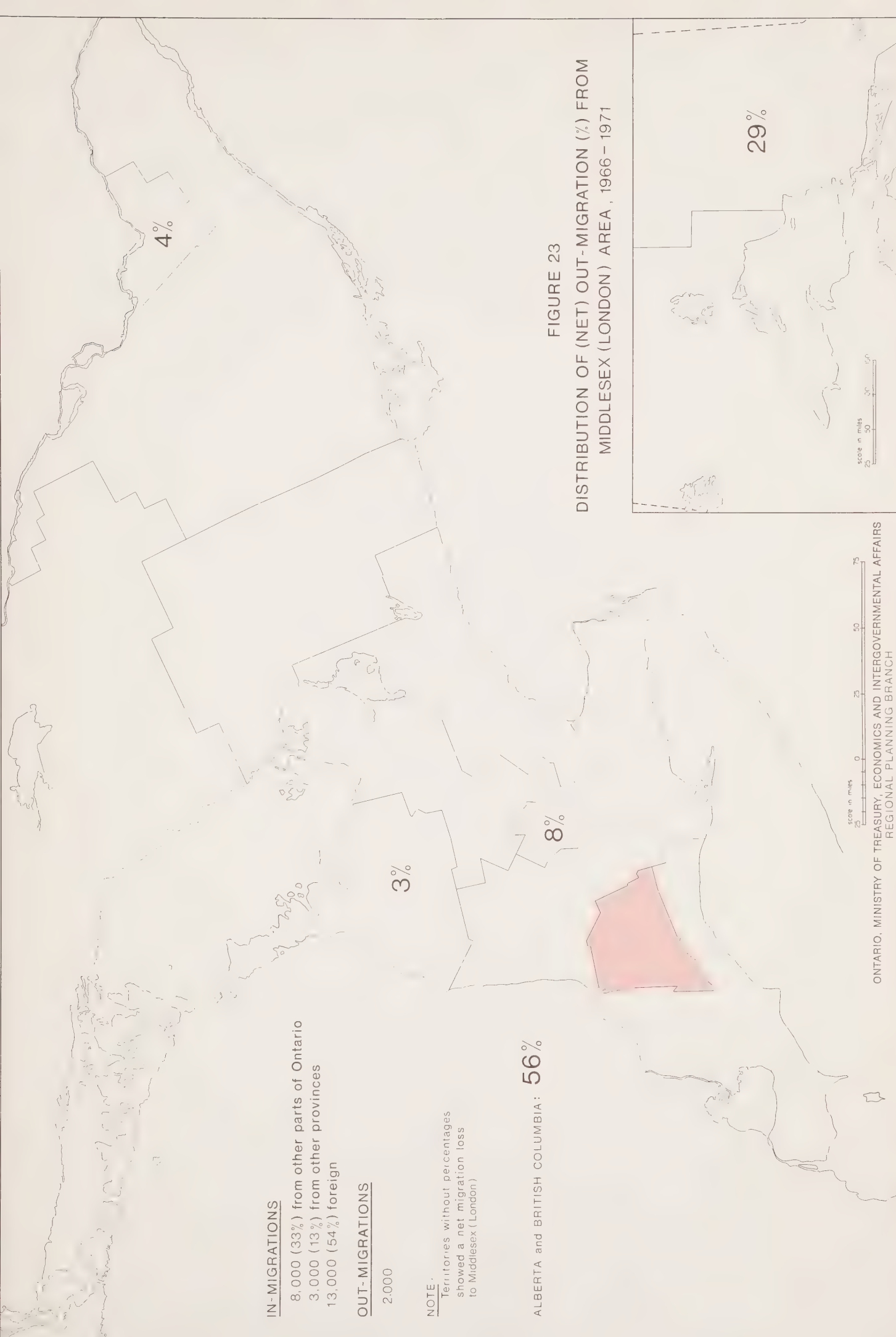


FIGURE 22
DISTRIBUTION OF (NET) OUT-MIGRATION (%) FROM
COLUC (TORONTO/HAMILTON) AREA, 1966-1971



IN-MIGRATIONS

8,000 (33%) from other parts of Ontario
3,000 (13%) from other provinces
13,000 (54%) foreign

OUT-MIGRATIONS

2,000

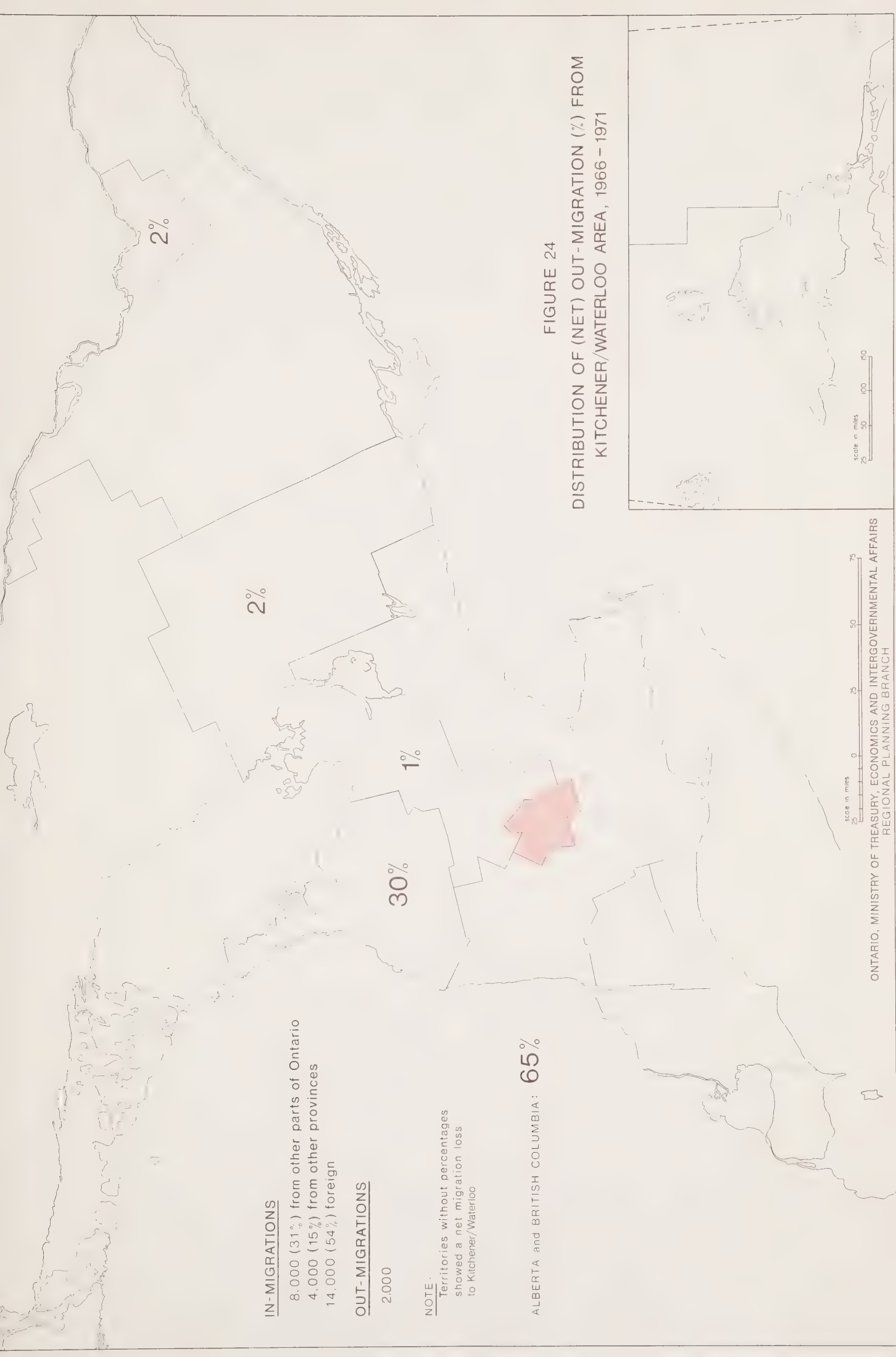
NOTE:

Territories without percentages
showed a net migration loss
to Middlesex (London)

ALBERTA and BRITISH COLUMBIA: 56%

FIGURE 23

DISTRIBUTION OF (NET) OUT-MIGRATION (%) FROM
MIDDLESEX (LONDON) AREA, 1966 - 1971



IN-MIGRATIONS

8,000 (31%) from other parts of Ontario
4,000 (15%) from other provinces
14,000 (54%) foreign

OUT-MIGRATIONS

2,000

NOTE:

Territories without percentages
showed a net migration loss
to Kitchener/Waterloo

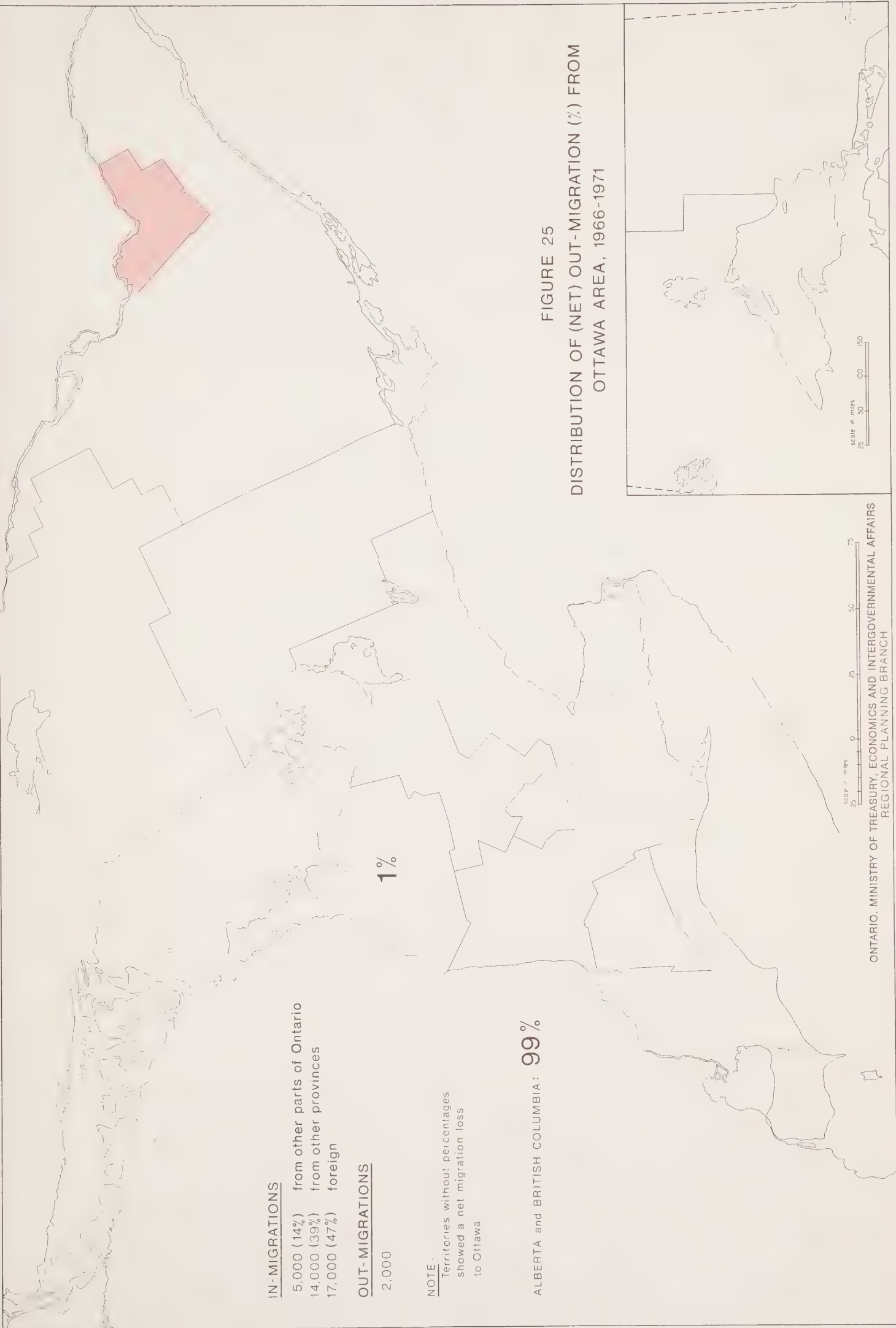
ALBERTA and BRITISH COLUMBIA:

FIGURE 24

DISTRIBUTION OF (NET) OUT-MIGRATION (%) FROM
KITCHENER/WATERLOO AREA, 1966 - 1971

SCALE in miles
25 50 75

SCALE in miles
25 50 100 150



IN-MIGRATIONS

5,000 (14%) from other parts of Ontario
14,000 (39%) from other provinces
17,000 (47%) foreign

OUT-MIGRATIONS

2,000

NOTE:

Territories without percentages
showed a net migration loss
to Ottawa

ALBERTA and BRITISH COLUMBIA : 99%

1%

FIGURE 25

DISTRIBUTION OF (NET) OUT-MIGRATION (%) FROM
OTTAWA AREA, 1966-1971

Scale in miles 0 25 50 75

Ottawa gained only 1% of the people leaving eastern Ontario. Also, eastern Ontario showed a slight gain in migrants during exchange with COLUC (Appendix H).

- (iv) In the Toronto/Hamilton area, the indigenous population tended to move outward from the central part of the urban complex to the fringe, or to the provinces of Alberta and British Columbia. The urban complex was then replenished, mainly by people from other countries.

The major destination area for (net) migrants from the COLUC area was the band of counties stretching from the Niagara Peninsula in the west, north to Dufferin/Simcoe, and east to the Pickering/Northumberland area (Figure 22).

Together, these counties accounted for nearly 2/3 of the total outflow. And the dispersal pattern covered a territory up to 60-70 miles from the Toronto urban core.

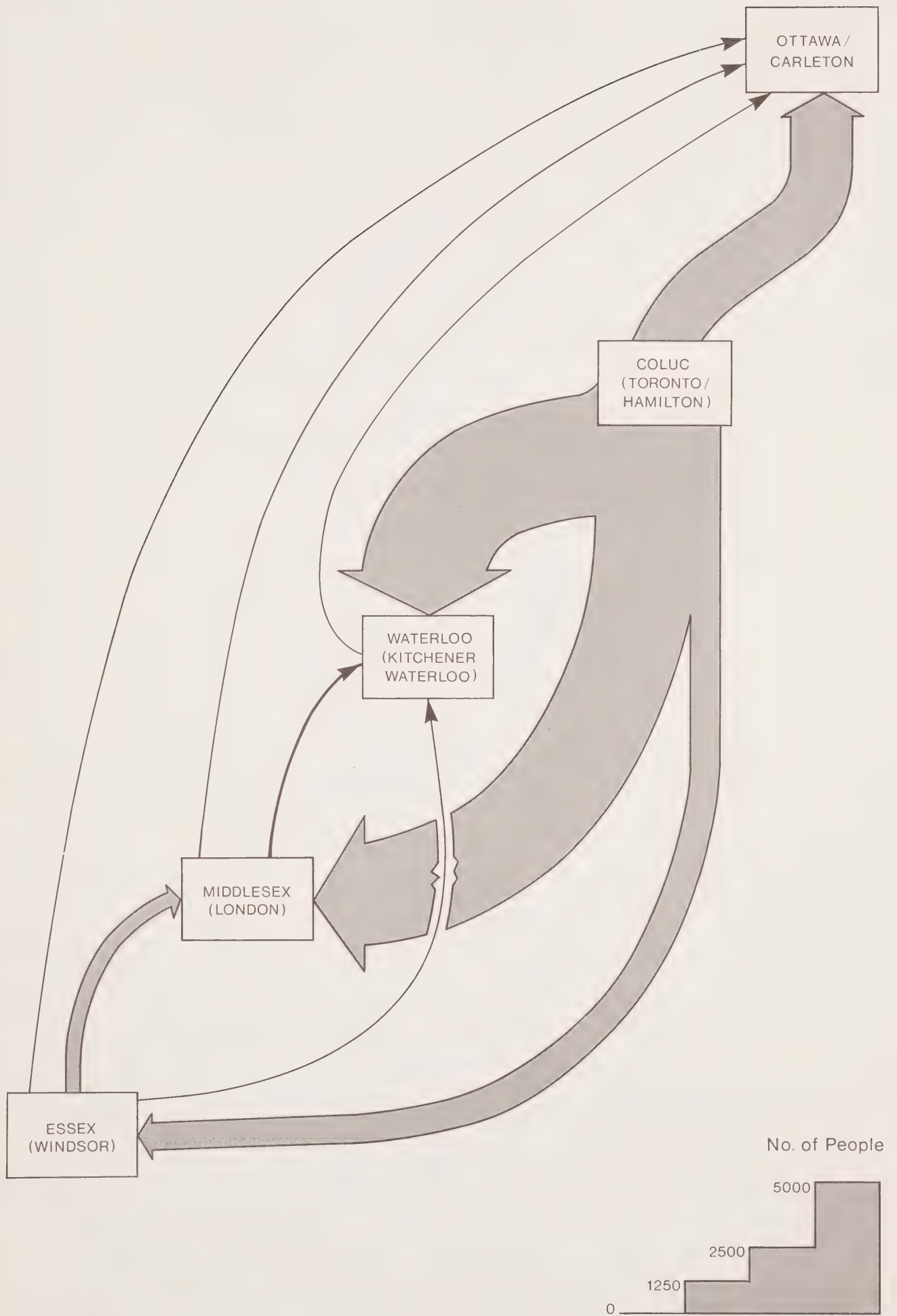
- (v) However, in some other metropolitan areas it showed the opposite trend (Figures 23, 24 and 25). For example, the Kitchener/Waterloo and the London metropolitan areas have attracted a fair portion of migrants from the surrounding fringe. Secondly, international immigration was a much smaller part of total immigration than it was in the Toronto/Hamilton Complex (about 50% versus 85%, respectively).

- (vi) Within the COLUC area, people from the Toronto area (Metro Toronto and York Regional Municipality) moved predominantly towards the west. For example, the two counties west of the Toronto area (Peel and Halton) received nearly five times as many people as the two counties in the east (Ontario and Durham). Surprisingly, the migration movements between the Toronto and Hamilton areas were roughly balanced.*
- (vii) Although there was a fairly substantial exchange of migrants among the five major urban complexes (COLUC, Ottawa, Kitchener/Waterloo, London, and Windsor), the net gain or loss to any one of the centres was rather small (Figure 26). This is particularly so for the net exchanges between either Ottawa or Windsor (Essex) and the other four centres. As another example, the COLUC area showed a net loss through migration to every one of the other four metropolitan areas, but the total amounted to only about 15% of its entire emigration loss. Similarly, the people of London (Middlesex) gained from Windsor (Essex) and COLUC were equivalent to only about 3% and 20% of London's total gain, respectively.

* In the exchange, Toronto showed a gain of about 700 people, which is less than the statistical error.

FIGURE 26

NET MIGRATION EXCHANGE BETWEEN
MAJOR METROPOLITAN AREAS, ONTARIO, 1966 - 1971



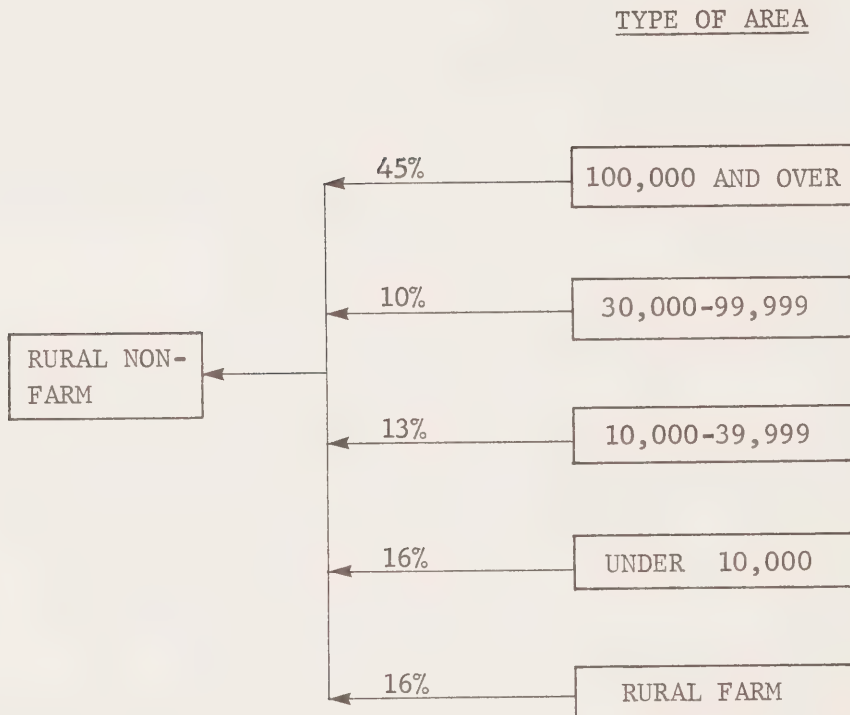
(viii) In terms of intraprovincial movements, rural non-farm areas were the most attractive to migrants, particularly from large cities.* During 1956-1961, rural non-farm areas were the only ones which showed a net gain of migration during the exchange with other areas, including rural farm areas, cities, and small centres (Table 21). About half of the gains came from the centres with a population of 100,000 and over.

(ix) Far more people from rural farm areas and from small centres (under 10,000) moved to rural non-farm areas than to the larger centres. For example, more than one third of the net migrants from the rural areas went to rural non-farm areas (Table 22), and 60% of those from small centres. By relocating to the rural non-farm areas, which are generally close to the large cities, these people were able to live in a predominantly rural and small-community environment, while at the same time being able to take advantage of the diversified economic opportunities available in the cities.

* For definition of urban, rural and rural non-farm, see Appendix A and Amyot, M. and George, M.V., Intraprovincial Migration Streams in Quebec and Ontario, Statistics Canada, 1973.

TABLE 21

NET MIGRATION EXCHANGE
RURAL NON-FARM AREAS VIS-A-VIS OTHER AREAS
ONTARIO, 1956-1961

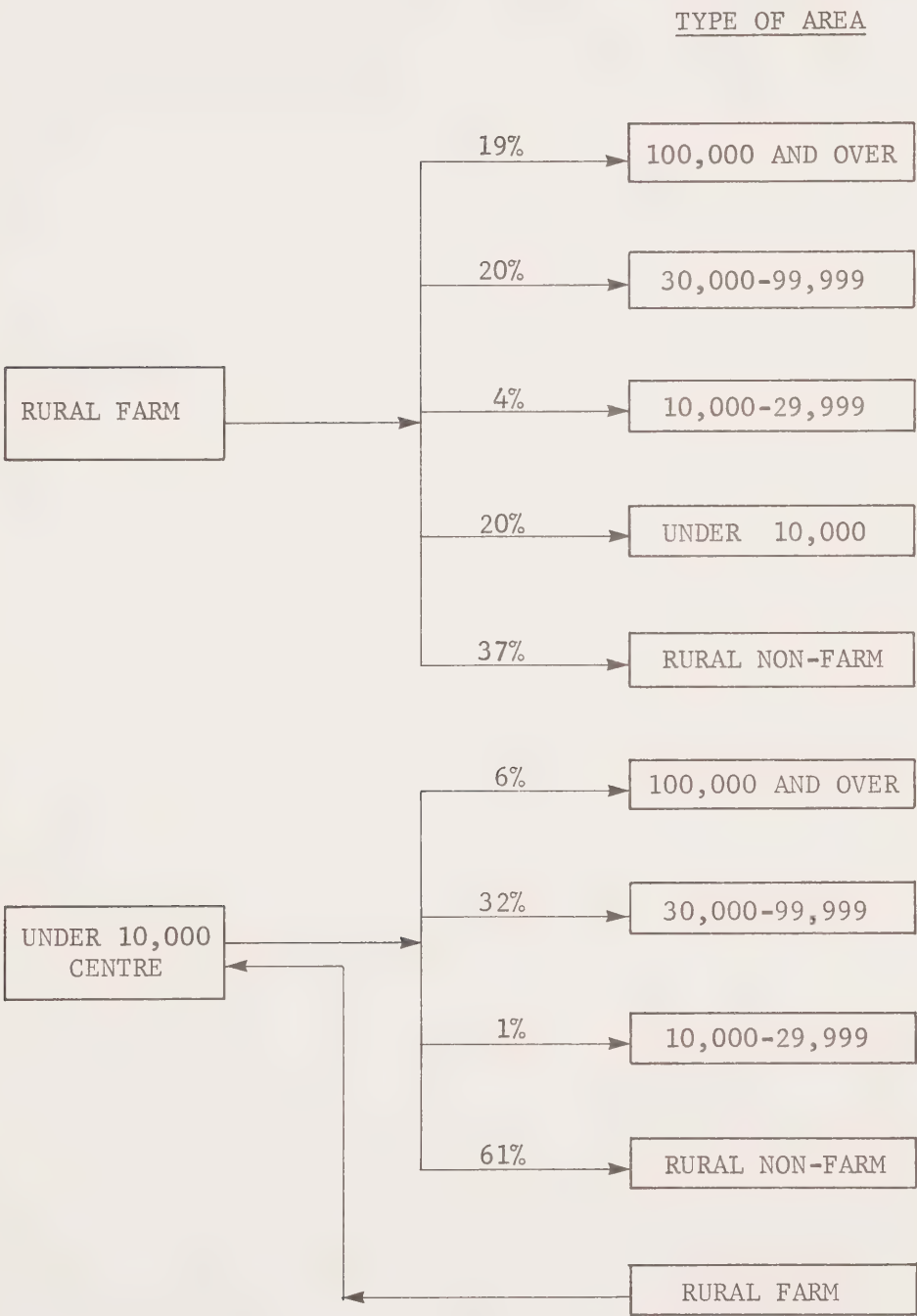


SOURCE: Computed from the data of Amyot, M. and George, M.V.,
Intraprovincial Migration Streams in Quebec and Ontario.
 Statistics Canada, 1973

NOTE: For definitions of rural, rural non-farm and urban
 see Appendix A.

TABLE 22

NET MIGRATION EXCHANGE, RURAL
FARM AREAS AND CENTRES UNDER 10,000 VIS-A-VIS
OTHER TYPES OF AREAS/ONTARIO, 1956-1961



SOURCE: Computed from the data of Amyot, M. and George, M.V., Intraprovincial Migration Streams in Quebec and Ontario, Statistics Canada, 1973.

NOTE: For definitions of rural, rural non-farm and urban see Appendix A.

- (x) Intra-rural migrations (farm-to-farm movement) appeared to be significantly influenced by the location of a major urban centre. For example, when farmers in the Toronto area were displaced, their movements formed three well-defined streams: the northeasterly one extending from Scarborough and Markham towards Port Perry/Lindsay; the north-westerly one extending from western Toronto and the Brampton area towards the Orangeville/Arthur/Palmerston area; and the northerly one extending from Metro Toronto north towards Barrie (Figure 27). There were very few east-west cross movements. Metro Toronto appeared to act as a psychological deterrent to lateral east-west farm-to-farm migration.

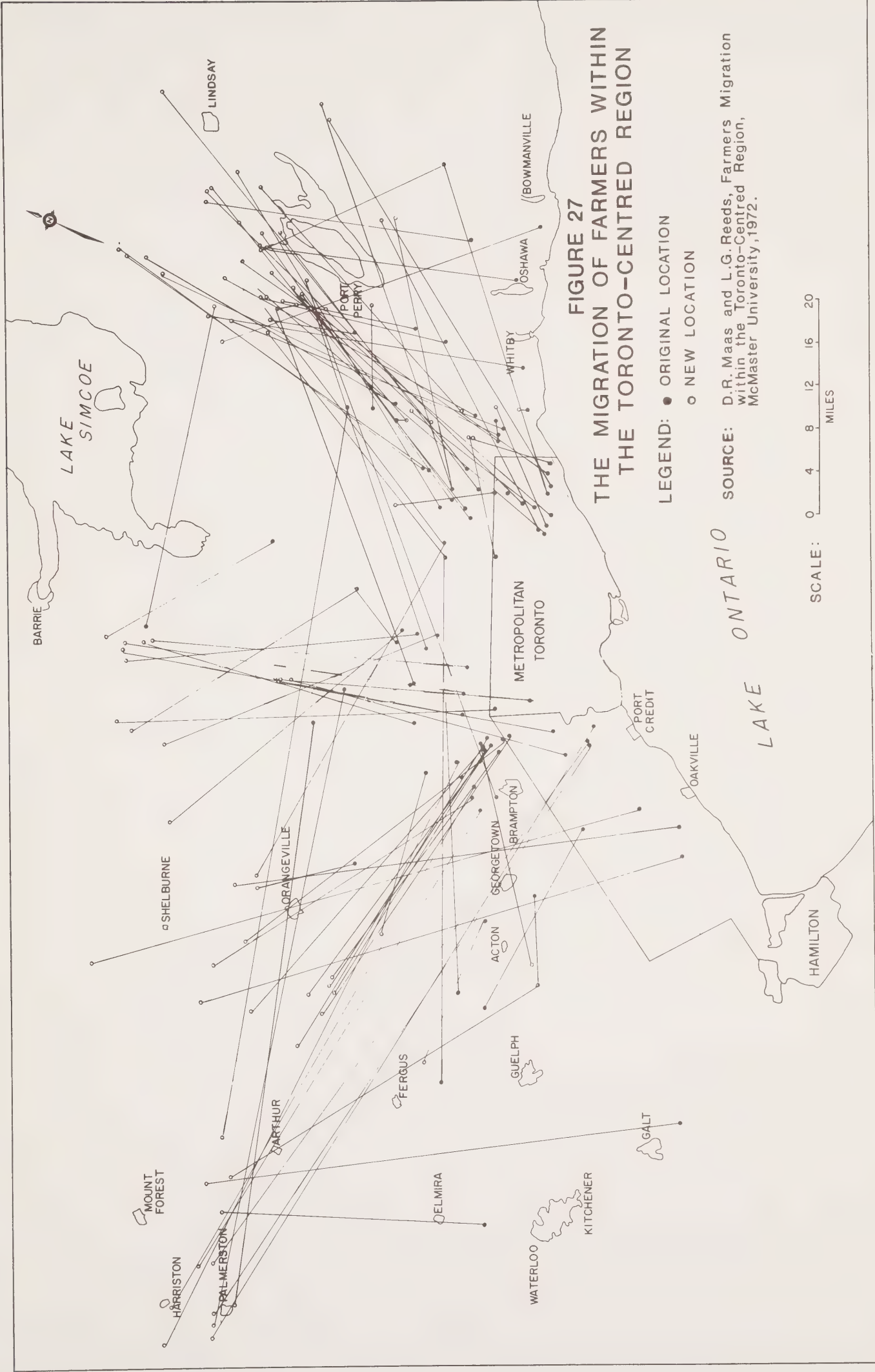


FIGURE 27
THE MIGRATION OF FARMERS WITHIN
THE TORONTO-CENTRED REGION

CHAPTER III: THE EMERGING PICTURE OF
POPULATION CHANGE

The foregoing sections have provided a perspective on Ontario's changing population pattern--its size, composition and distribution--together with an analysis on the extent to which various factors such as age structure, fertility and different forms of migration have affected these changes. In the course of the examination, it became evident that a number of the findings have important implications for the formulation of urban and regional development policies in the province. In the following paragraphs an attempt will be made to highlight a number of the more important of these findings. Further evaluation and the eventual translation of some of the substance into policies will be contained in later documents.

As shown, population change in Ontario in the past three decades has been dominated by growth resulting from a large influx of international and, to a lesser extent, interprovincial migration, coupled with a high birth rate during the 1950's and early 1960's. The latter, (i.e., natural increase) still constituted the largest component of the provincial population growth (about 60%). But growth alone is only one side of the picture. The issues arising from population growth in Ontario stem less from volume than from distribution and here there were some fairly substantial differences among various parts of the province. Further, the disparities are becoming more extreme. Proportionally, only the Central Ontario Region, mainly the COLUC area, increased its share of the provincial population growth during the last three

decades; the shares of all the other regions declined steadily. Is this a desirable growth pattern? How much more balance in the spatial distribution of population is called for? These are basic policy questions and are beyond the scope of this particular report to deal with. However, even if we set aside the question of social and political balance, in order to place the balance issue in its proper perspective, other development considerations such as the effect of balance or imbalance of population growth on the overall provincial economic growth, on the distribution of income, on the cost and efficiency of providing infrastructure and services, on the environment, and on the quality of life, and on the aspirations of the local people should all be included in the overall assessment.

Disparities exist not only among regions, but also among the metropolitan areas as well. As shown, the differences in growth dynamics between Toronto and other major centres such as Hamilton and Windsor are striking. In general, it appears that the growth of a centre is more closely related to its proximity to Toronto than to its size. Therefore, any policy which assumes that all big centres grow equally vigorously and, thus, either can or will absorb rural growth and immigration should be re-assessed. Furthermore, centres adjacent to Highway 401 did not gain a greater percentage of their population growth through net migration than did those centres located further away. This raises some doubt about the existence of the long postulated "development corridor", centred on Highway 401. Perhaps, the concept of

this development corridor needs to be redefined.

Certain parts of the province, mainly in eastern and northern Ontario have lost people steadily through out-migration. Recently, the pattern has become more wide-spread, and migration loss has occurred in the Niagara peninsula, as well as the Kent/Lambton/Huron area. However, the amount contributed by these intra-provincial migration streams to the growth of Central Ontario is relatively insignificant. Also, Alberta and British Columbia, not the major metropolitan centres in Ontario, gained most of the migrants from these areas. Implicitly, this situation raises some questions about the ways to effect a re-distribution of the benefits from provincial economic development. On one hand, the central development issue for eastern and northern Ontario appears to be how to get these two regions moving economically, for example, by creating more varied employment opportunities despite population trend, or a slight modification of the trend. That is, it is an economic matter rather than one of population. On the other hand, it seems that the vast growth of COLUC cannot really be restrained by re-directing intra-provincial flows back to the north and the east. Because of the large size and proportion of population contributed by international immigration to the growth of COLUC, it might be more appropriate to consider more closely the effect of this component in the formulation of growth management policy for the area. In general, international immigration has tended to favour the metropolitan areas,

especially Toronto, more so than migration from other provinces. The ethnic composition received by a number of the centres differed quite extensively and a few of the groups tended to be concentrated in a few specific centres. Thus, any changes in ethnic compositions resulting from a modification in the immigration policy would likely have different impacts upon the population growth among the various urban centres. What are some of the major factors which accounted for these differences in the migrant's behaviour--for example, in their choice of destinations and movements within the province? Although information of this nature is essential to any attempt to devise a mechanism to divert immigrants away from the large centres particularly Toronto, unfortunately, our knowledge of why people move about as they do is still rather meagre.

Moving away from sheer numbers, certain parts of the province have been undergoing some major transformations in their demographic mix. For example, in the Toronto/Hamilton area, the indigenous population has been moving outward from the central part of the urban complex to the fringe or to the provinces of Alberta and British Columbia. The urban complex was then replenished mainly by people from other countries and to a lesser extent by migrants from other parts of Canada. However, in some other metropolitan centres (e.g., London), such a trend did not appear to exist. Similarly, in the rural area, the total population has remained

fairly constant, because the loss of rural farm population has been counterbalanced by an increase in the rural non-farm population. The result is that the rural non-farm population is now nearly three times the size of the rural farm component. The former group is comprised to a large extent of migrants from the cities who are urban oriented and receive a fairly high income. Many of them are working in professional and managerial occupations.* The result is a far more complex spatial pattern of attitudes, aspirations, behaviour, and values than before, a pattern which may lead eventually to a new form of economic, cultural and political balance in the province. The development issues are also further complicated since these groups tend to make different demand on facilities, services, and land uses let alone their influence on the character and the social policies of our cities, towns as well as the rural communities.

The examination to this point represents a broad picture of population change in Ontario from 1941 to 1971. It is a product of numerous and different choices made by individuals, corporations, governments and other institutions. Many of the decisions are shaped by social, economic and technological forces evolved over a very long period of time. A number of these forces were merely coincidental while others were fostered deliberately or in some cases were beyond control of the

* See Punter, J., Ibid and Hodge, G., "The City in the Periphery," in Urban Futures for Central Canada: Perspectives on Forecasting Urban Growth and Form, Ed. by Bourne, L. S., MacKinnon R. D., and Simmons, J. W., University of Toronto Press, 1974.

government. What will the future be like if the causal factors that have dictated the pace and pattern of population growth in the past continue to operate in the next thirty years? This is, essentially, the main subject of the next volume, which deals with the expected trend pattern between 1971 - 2001. The trend picture might not be the most desirable and perhaps acceptable one in the light of current provincial development aspirations. But at least, the projection information will provide us a benchmark for assessing the overall magnitude of changes, if necessary, and hopefully for devising a more promising future.

APPENDIXES

APPENDIX A: CLASSIFICATIONS OF RURAL FARM AND
RURAL NON-FARM

1. The 1951 Census classification defined "rural" as the population of all unincorporated places, townships, and incorporated centres with a population under 1,000, except those rural areas and urban communities under 1,000 which were in the metropolitan areas.
2. The 1956 Census classification defined "urban" as all incorporated and unincorporated cities, towns, and villages with a population of 1,000 and over, as well as all fringe parts of metropolitan and other major urban areas. The remainder was "rural".
3. The 1961 Census classification defined "urban" as all cities, towns, and villages with a population of 1,000 and over, whether incorporated or not, as well as the urbanized fringes of (a) cities classified as metropolitan areas, (b) those classified as other major urban areas, and (c) certain small cities if the city together with its urbanized fringe areas, was 10,000 or over. The rest was "rural".
4. The 1971 Census classification defined urban as well as all (a) incorporated cities, towns and villages with a population of 1,000 or over, (b) unincorporated places of 1,000 or over having a population density of at least 1,000 persons per square mile and (c) the built-up fringe of (a) and (b) having a minimum population of 1,000 and over and density of 1,000 per square mile. The remainder was "rural".

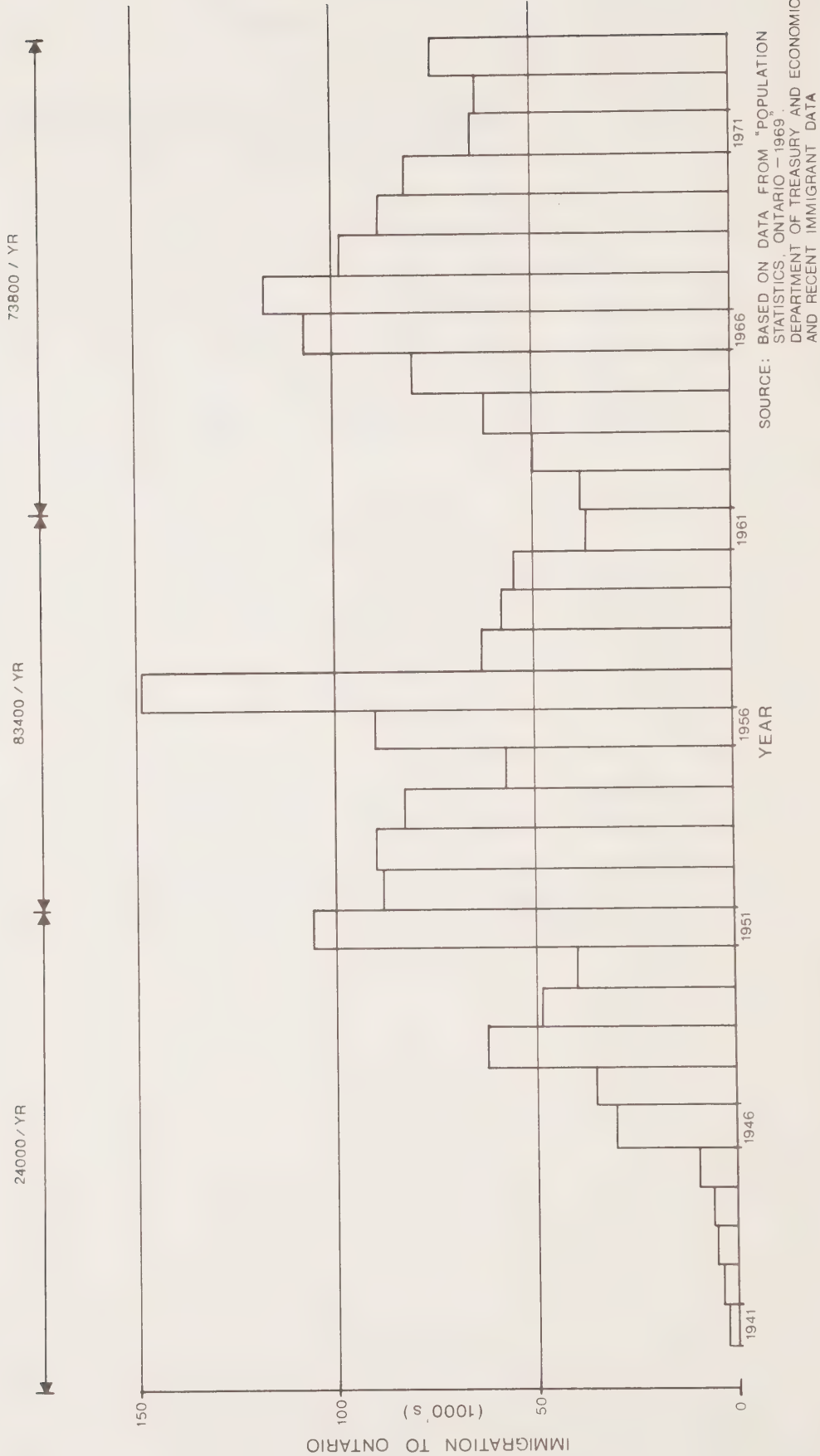
APPENDIX B

IMMIGRANT ARRIVALS IN CANADA AND THOSE
GIVING ONTARIO AS THEIR PROVINCE
OF DESTINATION, 1941-1971

| <u>YEAR</u> | <u>CANADA</u> | <u>ONTARIO</u> | <u>ONTARIO AS A</u> <u>% OF CANADA</u> |
|-------------|---------------|----------------|---|
| 1941-1951 | 584,000 | 290,000 | 50 |
| 1951-1961 | 1,514,000 | 800,000 | 53 |
| 1961-1971 | 1,435,000 | 766,000 | 53 |
| 1941-1971 | 3,533,000 | 1,856,000 | 53 |

SOURCE: Population Statistics, Ontario,
Economic Analysis Branch, Ministry
of Treasury and Economics.

APPENDIX C
FOREIGN IMMIGRATION TO ONTARIO
1941-1972



APPENDIX D

NO. OF IMMIGRANTS TO ONTARIO BY MAJOR SOURCES,
1962 - 1972

| SOURCE AREA | <u>1962</u> | <u>1963</u> | <u>1964</u> | <u>1965</u> | <u>1966</u> | <u>1967</u> | <u>1968</u> | <u>1969</u> | <u>1970</u> | <u>1971</u> | <u>1972</u> | <u>1962- 1972</u> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------|
| EUROPE | 28,500 | 39,000 | 49,300 | 64,000 | 88,100 | 90,300 | 68,400 | 51,700 | 45,000 | 30,300 | 30,300 | 584,900 |
| AFRICA | 500 | 700 | 1,000 | 900 | 1,400 | 1,700 | 1,600 | 1,300 | 1,400 | 1,500 | 3,500 | 15,500 |
| ASIA | 1,000 | 1,200 | 2,400 | 4,500 | 5,900 | 9,300 | 10,000 | 10,500 | 10,000 | 10,900 | 11,000 | 76,700 |
| AUSTRALASIA | 600 | 700 | 900 | 1,000 | 1,500 | 2,200 | 1,800 | 2,000 | 1,900 | 1,300 | 1,000 | 14,900 |
| U.S.A. | 5,100 | 5,300 | 5,400 | 6,100 | 6,800 | 6,900 | 8,200 | 9,400 | 10,100 | 9,200 | 9,100 | 81,600 |
| WEST INDIES, CENTRAL AND SOUTH AMERICA | 1,500 | 2,300 | 2,500 | 3,200 | 3,800 | 7,000 | 6,500 | 11,700 | 12,200 | 11,000 | 8,700 | 70,400 |
| OTHERS | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 600 |
| TOTAL | 37,200 | 49,300 | 61,600 | 79,800 | 107,600 | 117,500 | 96,600 | 86,700 | 80,700 | 64,300 | 63,700 | 843,700 |

SOURCE: Immigration Statistics, Department of Manpower and Immigration

APPENDIX E

COMPARISON OF NET MIGRATION PATTERN BETWEEN
PROVINCES, CANADA, 1951 - 1971

| PROVINCES | 1951 - 1956 | | 1956 - 1961 | | 1961 - 1966 | | 1966 - 1971 | |
|-----------------------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|
| | No. | % | No. | % | No. | % | No. | % |
| NEWFOUNDLAND | 1,800 | 0.3 | -16,400 | -15.6 | -24,000 | -13.1 | -20,200 | -10.3 |
| PRINCE EDWARD ISLAND | -8,100 | -10.5 | -3,300 | -3.1 | -4,600 | -2.5 | -2,100 | -1.1 |
| NOVA SCOTIA | -11,000 | -14.2 | -22,900 | -21.8 | -40,500 | -22.1 | -4,500 | -2.4 |
| NEW BRUNSWICK | -20,900 | -27.0 | -16,400 | -15.6 | -34,400 | -18.7 | -17,400 | -9.3 |
| QUEBEC | 96,100 | 14.2 | 109,200 | 18.6 | 63,900 | 14.4 | -39,700 | -21.2 |
| ONTARIO | 377,000 | 55.8 | 308,100 | 52.4 | 236,900 | 53.5 | 370,500 | 56.4 |
| MANITOBA | -200 | -0.3 | -4,400 | -4.2 | -29,000 | -15.8 | -24,100 | -12.8 |
| SASKATCHEWAN | -37,100 | -48.0 | -41,800 | -39.7 | -45,500 | -24.8 | -79,600 | -42.4 |
| ALBERTA | 62,700 | 9.3 | 64,600 | 11.0 | -3,300 | -1.8 | 60,100 | 9.2 |
| BRITISH COLUMBIA | 135,000 | 20.0 | 105,000 | 17.9 | 140,500 | 31.8 | 222,900 | 33.9 |
| YUKON | 1,400 | 0.2 | 300 | 0 | -2,300 | -1.3 | 2,400 | 0.4 |
| NORTHWEST TERRITORIES | 1,400 | 0.2 | 400 | 0.1 | 1,000 | 0.2 | 900 | 0.1 |
| TOTAL MIGRATION | +675,400 | +100.0 | +587,600 | +100.0 | +442,300 | +100.0 | +656,800 | +100.0 |
| TOTAL MIGRATION | -77,300 | -100.0 | -105,200 | -100.0 | -183,600 | -100.0 | -187,600 | -100.0 |
| NET TOTAL | 598,100 | 0 | 482,400 | 0 | 258,700 | 0 | 469,200 | 0 |

SOURCE: Statistics Canada

APPENDIX F

PER CENT DISTRIBUTION OF CENTRES BY PROPORTION OF THE POPULATION CHANGE
DUE TO NET MIGRATION AND SIZE OF CENTRE, ONTARIO
1941-1951 1951-1961 and 1961-1971

| CENTRE SIZE | % OF THE CENTRES WHOSE PROPORTION OF NET MIGRATION WAS | | | | | |
|------------------|--|--|--|---|---|---|
| | OVER 3/4 OF THE TOTAL POPULATION DECLINE | BETWEEN 1/2 TO 3/4 OF THE TOTAL POPULATION DECLINE | BETWEEN 0 TO 1/2 OF THE TOTAL POPULATION DECLINE | BETWEEN 0 TO 1/2 OF THE TOTAL POPULATION GROWTH | BETWEEN 1/2 TO 3/4 OF THE TOTAL POPULATION GROWTH | OVER 3/4 OF THE TOTAL POPULATION GROWTH |
| <u>1941-1951</u> | | | | | | |
| 1,000 - 4,999 | 0 | 4 | 29 | 37 | 20 | 10 |
| 5,000 - 9,999 | 0 | 5 | 41 | 36 | 14 | 5 |
| 10,000 - 29,999 | 0 | 5 | 32 | 47 | 11 | 5 |
| 30,000 - 99,999 | 0 | 0 | 57 | 29 | 14 | 0 |
| 100,000 and Over | 0 | 0 | 0 | 75 | 25 | 0 |
| <u>1951-1961</u> | | | | | | |
| 1,000 - 4,999 | 0 | 2 | 27 | 42 | 20 | 8 |
| 5,000 - 9,999 | 0 | 0 | 24 | 52 | 16 | 8 |
| 10,000 - 29,999 | 0 | 0 | 16 | 26 | 53 | 5 |
| 30,000 - 99,999 | 0 | 0 | 8 | 46 | 31 | 15 |
| 100,000 and Over | 0 | 0 | 25 | 50 | 25 | 0 |
| <u>1961-1971</u> | | | | | | |
| 1,000 - 4,999 | 2 | 12 | 18 | 21 | 27 | 21 |
| 5,000 - 9,999 | 0 | 9 | 26 | 35 | 26 | 3 |
| 10,000 - 29,999 | 0 | 9 | 26 | 9 | 43 | 13 |
| 30,000 - 99,999 | 0 | 0 | 38 | 25 | 38 | 0 |
| 100,000 and Over | 0 | 0 | 20 | 60 | 20 | 0 |

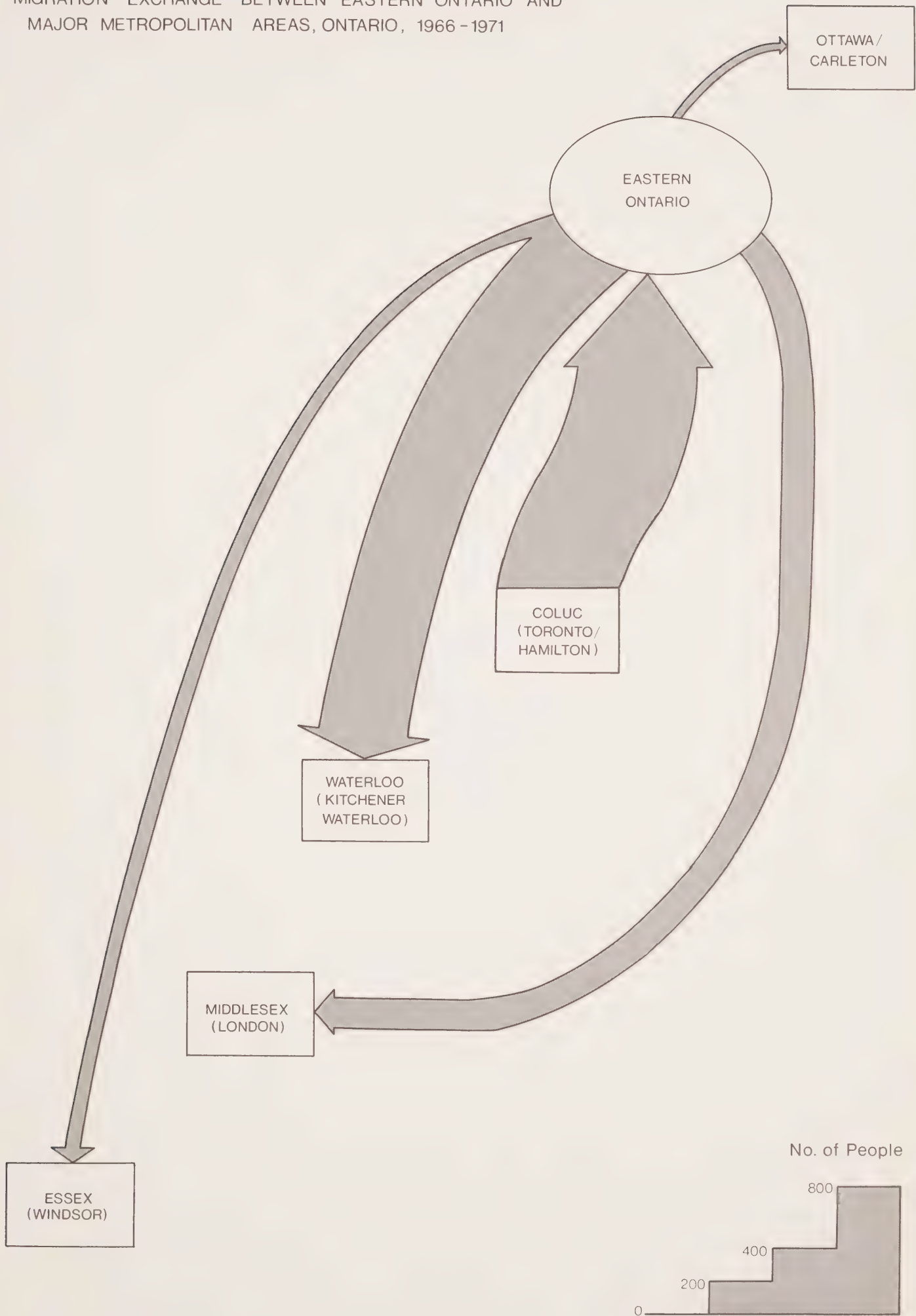
APPENDIX G

PER CENT DISTRIBUTION OF CENTRES BY PROPORTION OF THE POPULATION CHANGE
DUE TO NET MIGRATION AND PROXIMITY TO MAJOR METROPOLITAN AREAS, SOUTHERN ONTARIO,
1941-1951 1951-1961 and 1961-1971

| DISTANCE TO THE NEAREST MAJOR METROPOLITAN AREA (in miles) | % OF THE CENTRES WHOSE PROPORTION OF NET MIGRATION WAS | | | | | | |
|---|--|--|--|---|---|---|-------|
| | OVER 3/4 OF THE TOTAL POPULATION DECLINE | BETWEEN 1/2 TO 3/4 OF THE TOTAL POPULATION DECLINE | BETWEEN 0 TO 1/2 OF THE TOTAL POPULATION DECLINE | BETWEEN 0 TO 1/2 OF THE TOTAL POPULATION GROWTH | BETWEEN 1/2 TO 3/4 OF THE TOTAL POPULATION GROWTH | OVER 3/4 OF THE TOTAL POPULATION GROWTH | TOTAL |
| 1941-1951 | | | | | | | |
| Less than 15 | 0 | 0 | 14 | 14 | 43 | 29 | 100 |
| 15 TO 24 | 0 | 0 | 29 | 35 | 29 | 6 | 100 |
| 25 TO 34 | 0 | 0 | 27 | 43 | 20 | 10 | 100 |
| 35 TO 54 | 0 | 2 | 26 | 40 | 21 | 10 | 100 |
| 55 TO 75 | 0 | 0 | 25 | 30 | 30 | 15 | 100 |
| Over 75 | 0 | 10 | 39 | 42 | 10 | 0 | 100 |
| 1951-1961 | | | | | | | |
| Less than 15 | 0 | 0 | 0 | 43 | 43 | 14 | 100 |
| 15 TO 24 | 0 | 6 | 18 | 29 | 18 | 29 | 100 |
| 25 TO 34 | 3 | 0 | 17 | 43 | 29 | 9 | 100 |
| 35 TO 54 | 0 | 2 | 16 | 43 | 36 | 2 | 100 |
| 55 TO 75 | 0 | 5 | 21 | 53 | 16 | 5 | 100 |
| Over 75 | 3 | 0 | 34 | 34 | 17 | 11 | 100 |
| 1961-1971 | | | | | | | |
| Less than 15 | 0 | 0 | 0 | 38 | 38 | 25 | 100 |
| 15 TO 24 | 0 | 0 | 9 | 30 | 48 | 13 | 100 |
| 25 TO 34 | 0 | 0 | 9 | 38 | 38 | 15 | 100 |
| 35 TO 54 | 2 | 14 | 24 | 20 | 29 | 12 | 100 |
| 55 TO 75 | 0 | 14 | 23 | 9 | 23 | 32 | 100 |
| Over 75 | 2 | 12 | 29 | 12 | 24 | 21 | 100 |

APPENDIX H

NET MIGRATION EXCHANGE BETWEEN EASTERN ONTARIO AND
MAJOR METROPOLITAN AREAS, ONTARIO, 1966 - 1971



BIBLIOGRAPHY

1. Amyot, M., and George, M. V., Intraprovincial Migration Streams in Quebec and Ontario, Statistics Canada, 1973.
2. Brown, R., Exurban Development in Southwestern Ontario, Staff Paper, Regional Planning Branch, 1975.
3. Canada: A Geographical Interpretation, Ed. by Warkentin, J., Canadian Association of Geographers, Methuen, Toronto, 1968.
4. Central Ontario Lakeshore Urban Complex Task Force, Report to the Advisory Committee on Urban and Regional Planning, Ontario, 1974.
5. Chapin, F. S., Urban Land Use Planning, 2nd Edition, Urbana, University of Illinois Press, 1965.
6. Dunn, E. S., Jr., "A Statistical and Analytical Technique for Regional Analysis, Regional Science Association, Papers and Proceedings, Vol. VI, 1960.
7. Goodman, W. I., and Freund, E. C., Ed., Principle and Practice of Urban Planning, International City Manager's Association, 1968.
8. Hawkins, F., Canada and Immigration: Public Policy and Public Concern, McGill - Queen's University Press, 1972.
9. Hill, R. G. A., Population, Growth and Land Use Planning, Ontario Ministry of Agriculture and Food, A Report Prepared for the Central Ontario Lakeshore Urban Complex (COLUC), 1974.
10. Hirschman, A. O., The Strategy of Economic Development, New Haven, Yale University Press, 1965.
11. Hodge, G., "The City in the Periphery," in Urban Futures for Central Canada: Perspectives on Forecasting Urban Growth and Form, Ed. by Bourne, L. S., MacKinnon, R. D., and Summons J. W., Toronto, University of Toronto Press, 1974.
12. _____, Paris J., "Population Growth and Regional Development", A Paper Presented to the Conference on Implications of Demographic Factors for Educational Planning and Research, O.I.S.E., Toronto, 1967.
13. Isard, W., Methods of Regional Analysis, Cambridge, Mass., M.I.T. Press, 1960.
14. Kalbach, W. E., The Impact of Immigration in Canada's Population, Dominion Bureau of Statistics, 1970.
15. Maas, D. R., and Reeds, L. G., Farmers Migration Within the Toronto-Centred Region, McMaster University, 1972.

16. MacLeod, B., Ivison, C., and Bidani, N., Patterns and Trends in Ontario Population, Toronto, The Ontario Institute for Studies in Education, 1972.
17. Ontario: Economic and Social Aspects, Ontario Department of Economics, 1961.
18. Paris, J. D., "Regional/Structural Analysis of Population Changes," Regional Studies, Vol. 4, 1970.
19. Perloff H. S., Dunn, E. S., Lampard E. E., and Muth R. R., Regions, Resources and Economic Growth, Baltimore, Johns Hopkins Press for Resources for the Future, 1950.
20. _____, Dodds, V.W., How a Region Grows, Committee for Economic Development, New York, 1963.
21. Planning for Agriculture in Southern Ontario, A Report Prepared by the Centre for Resources Development for the ARDA Directorate, University of Guelph, 1972.
22. Population Statistics, Ontario, Department of Treasury and Economics, 1969.
23. Punter, J., The Impact of Exurban Development on Land and Landscape in the Toronto Centred Region, 1954-1971, unpublished Ph.D. Thesis, York University, 1974.
24. Rodd, S., "Identifying the Issues in Rural Land Planning," Notes on Agriculture, Vol. X, April 1974, University of Guelph.
25. _____, "A Remarkable Change in the Rural Land Market," Notes on Agriculture, Vol. X, 1974, University of Guelph.
26. _____, "Small Area Migration Experience in Southern Ontario, 1951 - 1961," A Paper Prepared for Conference on Implications of Demographic Factors for Educational Planning and Research, Ontario Institute for Studies in Education, Toronto, 1969.
27. Rural Residential Development by the Committee of Adjustment or the Land Division Committee, Trends and Policy Implications for the COLUC Area, Unpublished Discussion Paper, Regional Planning Branch, 1974.
28. Russwarm, L. H. Development of an Urban Corridor System, Toronto to Stratford Area, 1941 - 1966, University of Waterloo, 1970.

29. Stone, L. O., Urban Development in Canada, 1961 Census Monograph, Dominion Bureau of Statistics, 1967.
30. _____, Migration in Canada, Some Regional Aspects, Dominion Bureau of Statistic, Ottawa, Queen's Printer, 1969.
31. Tremblay, M. A., and Anderson, W. J., Rural Canada in Transition, Agricultural Economics Research Council of Canada, 1966.

